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The CAVALRY JOURNAL

IN THIS NUMBER

CAVALRY LEADERSHIP TEST FOR SMALL UNITS

6th Cavalry Test

—Lieutenant Colonel Howell
M. Estes, 6th Cavalry.

11th Cavalry Test

—Captain Marcellus L. Stockton, Jr.,
11th Cavalry.

12th Cavalry Test

—1st Lieutenant Samuel L. Myers,
12th Cavalry.

14th Cavalry Test

—1st Lieutenant Milton A. Acklen,
14th Cavalry.

Cayuse

—Captain James A. McGuire.

Some Rifle Platoon Methods

—1st Lieutenant A. R. Del Campo,
5th Cavalry.

The Cavalry School Digest of Information



Published Bi-Monthly by
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JANUARY-FEBRUARY, 1937

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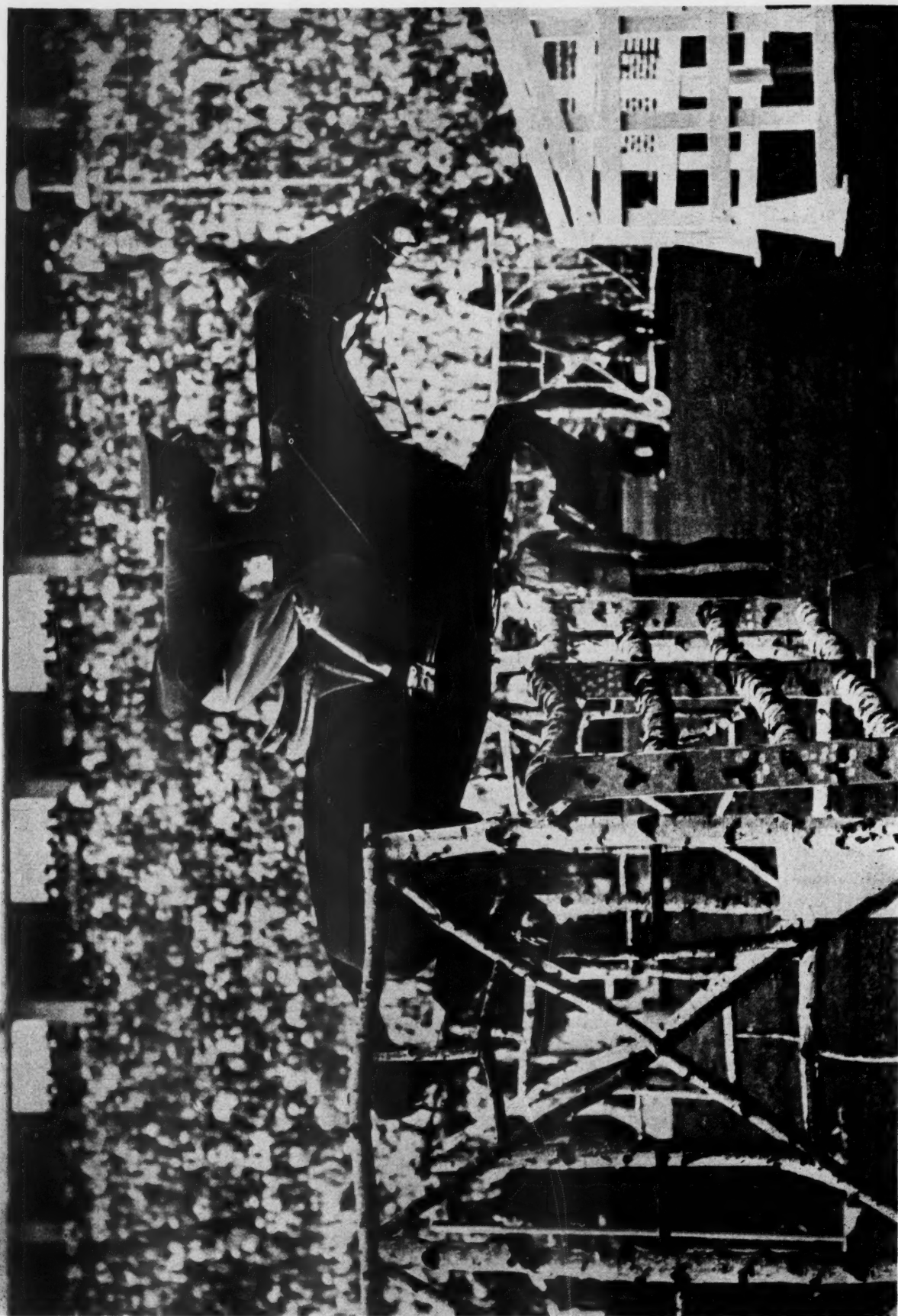
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The 1936 Cavalry Leadership Test For Small Units

WHILE the Cavalry Leadership Test for Small Units has, since its inauguration in 1925, been of untold value to our Regular Army cavalry through stimulating training in that most important fighting unit, the platoon, the 1936 competitions were, without doubt, productive of more beneficial results than those of any previous year. This is due to the fact that, for the first time in the history of the test, four separate competitions were conducted, and the further fact that the test is becoming more comprehensive each year.

The test is divided into two phases:

The individual phase, to demonstrate the endurance and ability of the platoon commander acting along.

The leadership phase, to demonstrate the qualities of prompt decision, aggressiveness and ability of the officer as a leader, as shown by the evidence of proper training of his men.

The phases are given weights in about the ratio of one for the individual to three for the leadership.

During its first two years the test was limited to platoons from the 2d Cavalry stationed at Fort Riley. Then for 1927 and 1928 it was transferred to Fort Bliss where the 7th and 8th Cavalry competed. In 1929 the policy was adopted of including smaller stations, so the platoons of all line troops have been given an opportunity to compete for this prize.

The directive issued last fall provided for separate competitions, to be held between September 1st and November 30th, in the following organizations:

6th Cavalry, Fort Oglethorpe, Georgia.

11th Cavalry, Presidio of Monterey, California.

2d Squadron, 12th Cavalry, Fort Ringgold, Texas.

2d Squadron, 14th Cavalry, Fort Des Moines, Iowa.

Each troop of the unit was required to enter in the competition at least one rifle platoon composed of one lieutenant, two sergeants, three corporals, and twenty-two privates, first-class, and/or privates.

Among the conditions stipulated for the 1936 test were:

(1) Full field equipment for officers and men, including rations and forage. No vehicles or pack animals to accompany platoons.

(2) Competing units to be considered as operating in enemy territory.

(3) Hostile cavalry and planes active in vicinity.

(4) A march of from twenty to sixty miles.

(5) Several tactical situations, at least one of which to involve combat with ball ammunition.

(6) At least one situation where the platoon actually goes into camp.

(7) Part of the operation to be carried out under cover of darkness.

(8) All competing platoons of the same regiment or detached squadron to operate over the same ground under like conditions.

The CAVALRY JOURNAL has obtained from each unit holding the test in 1936, a story showing the conduct of the competition in that unit. Although the boards acted under the same general directive, they were encouraged to use their own ingenuity in the preparation of the detailed instructions. Consequently, each unit has a different story of the test, influenced by local conditions and the personal ideas of the board.

The tactical situations, although designed to bring out the same lessons at all stations, are affected by the terrain. For instance, the country over which the Fort Ringgold test was conducted was "heavily covered with the thickest, thorniest brush known to man" so that it was "extremely difficult to move cross-country at slow gaits and impossible to move with speed." We show, therefore, how the same problem was solved by four platoon commanders operating in different sections of the country.

In presenting this group of interesting reports, we have not only included the important features of the test as seen by the members of the boards who planned and supervised the competitions at the various posts, but have included the viewpoint of one of the winning competitors showing his preparations for the test and how he met the various situations as they arose. The observations of a platoon umpire also assist in completing the picture.

This is a real leadership test, and one cannot read the reports and comments without being impressed by the efficiency of our junior cavalry officers and the effectiveness of our cavalry platoon under simulated wartime conditions.

The 6th Cavalry Test

By LIEUTENANT COLONEL HOWELL M. ESTES, 6th Cavalry

IT was deemed advisable to include in this article regarding the conduct of the 6th Cavalry test in Leadership for Small Units the difficulties encountered by the board of officers in preparing the test; remarks by its commander concerning the training of the winning platoon

and the observations of one of the platoon umpires. This, in the hope of painting the complete picture of this rather interesting event.

The board was governed in its preparation by the War Department directive and its major problem was the

adaptation of the required exercises to the terrain of Fort Oglethorpe and vicinity. Inasmuch as the maneuver was limited to Fort Oglethorpe, Chickamauga National Military Park and the Catoosa Target Range Reservation, roads outside these areas were available only for purposes of marching, private property rights precluding maneuver. The old combat range at Catoosa being held unsafe when firing boattail ammunition, combat firing was limited to the known distance range. Fortunately, the post and Chickamauga Park afforded excellent ground for the individual tests of platoon leaders.

First information regarding the proposed tests was contained in a War Department directive, published to the troops by the regiment in August. However, owing to the CMTC and target range seasons for all units of the command, training for the tests was not initiated until October 13th. At this time the board made known to potential contestants the provisions and scope of the tests which it intended to present. Generally, platoon commanders were made responsible for the training of their respective platoons and their troop commanders were directed to allot them a minimum of two hours daily for training purposes.

Necessary precautions were taken by the board to prevent any practice or rehearsals of coming events. However, contestants were acquainted with the courses for the individual tests some two days prior to their scheduled execution but, necessarily, all contestants were prohibited from practicing same. For the platoon phase, the issuance of the several sections of the problems were so scheduled as to preclude rehearsal.

THE INDIVIDUAL PHASE

Individual tests embraced the running of Courses A and B. The former was a mounted cross-country phase of approximately seven miles, and included ten natural or artificial obstacles together with seven pistol targets to be fired upon, while the latter included a dismounted cross-country course of approximately two miles, with its starting point at the finish of Course A. The total time allotted for the completion of the combined courses was fifty-five minutes. Horse equipment comprised stripped saddles only but individuals were required to compete with full field equipment in accordance with existing regimental regulations. Only public mounts from the contestants' assigned troops were permitted. Competitors failing to attain a score of seventy-five per cent in these tests were eliminated from further consideration. (This test weighed only twenty-five points in the final score.)

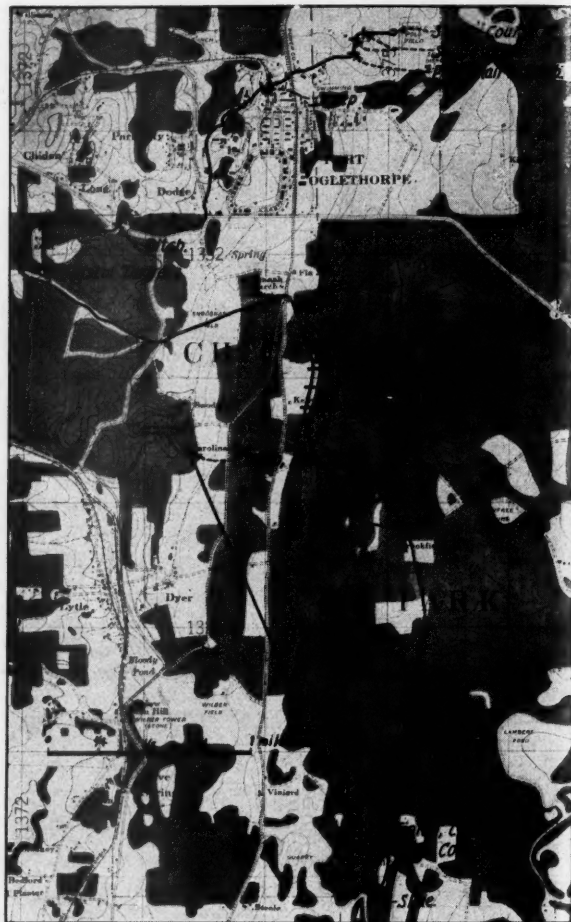
Competing lads, in the rôle of young braves, were:

- 1st Lieutenant Hamilton H. Howze (Troop A).
- 2d Lieutenant John F. Franklin (Troop B).
- 2d Lieutenant Charles J. Hoy (Troop E).
- 2d Lieutenant Paul M. Jones (Troop F).

ALTERNATE PLATOON LEADERS

- 2d Lieutenant Stephen W. Holderness.
- 2d Lieutenant William R. Prince.
- 2d Lieutenant Francis M. Oliver.

Manner of execution. Contestants, in an order determined by lot, started from the initial point of Course A at fifteen-minute intervals, commencing at 8:00 AM, and proceeded at gaits of their own selection to the dismounting point (initial point of Course A), riding between the flags. No record was made of refusals or runouts at obstacles nor was there any limit to the number of tries a contestant might make at any one obstacle, the umpire at each merely recording for the contestant whether or not the obstacle was taken. At the dismounting point each contestant turned over his horse to an orderly pro-



The 6th Cavalry course for the individual phase.

vided and was directed by the umpire at that point to proceed dismounted and report to the final umpire at the South Carolina Monument. In covering Course B the contestant was required to carry personal equipment prescribed but could carry it in any manner he saw fit.

Penalties. Any contestant failing to attain seventy-five per cent in the individual phase was eliminated from further competition. Each contestant was credited with one hundred points and penalties were adjudged as follows:

- (1) For each obstacle not taken the contestant forfeited five points.

(2) (a) For each pistol target not hit the contestant forfeited one point.

(b) For each shot less than seven fired by the contestant between time of passing the first and that of passing the last pistol target he forfeited one point.

(c) For each shot fired at any gait but the gallop the contestant forfeited one point.

(3) For each minute or fraction thereof over fifty-five minutes required to complete the entire individual phase the contestant forfeited two points.

(4) For injury to his mount sufficient to prevent the mount from carrying the contestant through the second phase, the contestant forfeited twenty-six points.

The Individual Phase was carried out under particularly difficult conditions in that a driving rain was falling. It had been raining since the previous day. This made the courses heavy going, to say the least. Nevertheless, all the contestants finished with the "first string" platoon leaders qualifying.

Only one bad fall occurred when Lieutenant Howze's mount struck a water-filled hole at an extended gallop and turned over, throwing him against a tree. This accident cost Lieutenant Howze a front tooth and a badly bruised side but, fortunately, he was able to catch his uninjured mount and finish the course with a good score.

All contestants were pretty much "blown" after the last two miles afoot through the mud and wet underbrush.

THE LEADERSHIP PHASE

The Platoon Test was a two-day affair held October 28th and 29th. The actual problem as issued to the platoon leaders, with such comments as were thought appropriate, follows:

GENERAL SITUATION AND SPECIAL SITUATION BLUE I
(Released, 12:00 noon, October 26, 1936.)

Maps: U. S. Geological Survey Map, 1/125,000; Ringgold—Fort Oglethorpe Sheet.

General Situation: 1. The Georgia-Tennessee line forms part of the boundary between two small states, Blue (north), Red (south) which have recently declared war. Neither of these states is prepared for war and both are mobilizing for operations.

2. Blues are concentrating their main forces in the Nashville-Knoxville area.

3. The Reds are concentrating their main forces south of the line Anniston—Atlanta—Athens, with a covering force of about a brigade at Rome (50 miles south of Fort Oglethorpe, Georgia) and a smaller force composed of mounted and motorized troops in the vicinity of Dalton (25 miles southeast of Fort Oglethorpe, Georgia).

4. Both countries have small detachments of border guards along the international boundary which have been in observation since the outbreak of war. The air forces of both sides are weak in strength and composed largely of observation aviation.

Special Situation Blue I:

1. On 18 October the 1st Division, with the 6th Cavalry attached, was ordered to concentrate in the Chat-

tanooga area to protect that important industrial center and to cover the mobilization and concentration of the main Blue forces. By 25 October, Division Headquarters, the 6th Cavalry, the 2d Infantry and the 1st Field Artillery had arrived in the Chattanooga area. The entire concentration of the division is not expected to be completed before 1 November.

2. a. On 27 October the 6th Cavalry marched from Chattanooga with orders to seize Fort Oglethorpe, Georgia, and cover the concentration of the division from that vicinity. By 2:00 PM, that day the regiment had brushed aside Red border guards and had seized Fort Oglethorpe which was found to be ungarrisoned and devoid of military stores or supplies.

b. During the afternoon (27 October) dropped messages from Blue observation planes, informed Colonel A commanding the 6th Cavalry that small Red mounted and motorized detachments had been observed moving northwest from the vicinity of Dalton toward Ringgold; and that no troop movements had been observed north from Rome.

c. Colonel A decides to hold his main body concentrated at Fort Oglethorpe and to reconnoiter the area north of an east-west line through La Fayette between the Alabama Great Southern Railway on the west and the Chattanooga Mountain Ridge on the east. The reconnaissance to be effected by patrols to be sent out the next morning.

WARNING ORDERS TO PATROL LEADERS

(Released at 12:00 noon, October 27, 1936.)

1. In accordance with his decision of the afternoon before, Colonel A issues the following warning orders to the patrol leaders who are to reconnoiter the area.

2. At 6:00 PM, 27 October, Lieutenant _____, commanding the patrol from _____ Troop receives the following warning order:

Hq. 6th Cav.
Ft. Oglethorpe, Ga.
5:00 PM, 27 Oct. 1936.

1. Enemy and our own situations given you orally (Note: See "Release" issued 26 Oct.).

2. You will report to me with your patrol at _____ AM, 28 October, on the RINGGOLD ROAD, 200 yards east of its junction with the LA FAYETTE ROAD prepared to march at once on a reconnaissance mission.

3. Your troop commander has been directed to place the necessary means at your disposal to carry out the following requirements:

a. Composition of patrol under your command:

- 2 sergeants
- 3 corporals
- 22 privates, first class, or privates.

b. Equipment:

Full field equipment for all members of the patrol.

c. Rations and Forage: Every member of the patrol will carry one cooked ration and one feed of grain.

d. Ammunition: No ammunition of any description will be carried.

e. Neither pack animals nor wheel transportation will accompany your patrol.

A
Colonel, 6th Cavalry.

In the warning orders the platoons were directed to report at hourly intervals commencing at 7:00 AM. While this was depriving the tactical situation of some of its reality, it was nevertheless necessary as the platoons had to be subjected to as nearly the same conditions as to weather and terrain as possible. Moreover, it was also necessary for all platoons to fire the combat problem on the Catoosa Range as no other terrain was available for this purpose.

(Released by Platoon Umpires to Patrol Leaders at the initial point on October 28th.)

Lieutenant _____, commanding the patrol from Troop _____, upon reporting to Colonel A at _____ AM, 28 October, in compliance with warning orders issued the night before, receives the following oral orders from Colonel A upon which he was directed to make notes that were easily destroyed:

"No change in the Red and Blue situations as given you last night.

"You will proceed at once with your patrol to the vicinity of TUNNELHILL via the FORT OGLETHORPE—RINGGOLD ROAD—DIXIE HIGHWAY (Route 76) for the purpose of reconnoitering that route and of determining the strength, composition and disposition of any hostile forces in TUNNELHILL and vicinity. Identifications and early reports of any hostile forces encountered are desired.

"You are authorized to requisition from the inhabitants the necessary food for your men and animals and the necessary animals to replace any animal casualties that you may suffer, giving in return receipts for the supplies requisitioned.

"Are there any questions? Move out as soon as you are ready."

There follows an extract from the umpires' instructions relative to the test. Said extract shows the function of the platoon and special umpires and the problems presented to the platoon leaders from the start of the test until the arrival of the platoons in the vicinity of the junction of the Ringgold-Tunnelhill Road with the Target Range Road.

Control Point No. 1 (Vicinity of Junction of Ringgold with the La Fayette Road.)

At this control point the platoon umpire will give to the patrol leader his letter of instructions which gives him his mission of marching on Tunnelhill via the Ringgold Road—Dixie Highway. He will then direct the patrol leader to prepare his platoon for inspection. The inspection will be made by two special umpires who will check the equipment of the platoon and ascertain that no ammunition is carried by any member of the patrol. During this inspection the patrol leader will be studying his orders and preparing his plan of execution. The platoon umpire will answer any questions that would have been answered by Colonel A in giving his oral orders. When the patrol leader has digested his orders (not to exceed 30 minutes from the time he receives his orders) he will be required to give his orders to start the patrol on its mission.

The function of the umpire is to observe the actions of the patrol leader and rate him on the manner in which he

executes his mission, handles his patrol and upon the training demonstrated by his men. He will intervene only to keep the patrol leader within the exercise as conceived by the board. He will be provided with score forms by the board for this rating. These he will consummate.

Control Point No. 2 (Vicinity eastern exit of Park Reservation).

Platoon in this vicinity to encounter a hostile force estimated to be a squad dismounted in position, so as to delay the advance of the platoon. This hostile force to consist of one or two riflemen with blank ammunition, and two men with red flags to outline hostile position. Umpire to check on mounted action or action taken by platoon leader.

Control Point No. 3 (Junction of Target Road and Dixie Highway [Stone Church]).

The platoon umpire will, at this point, halt the platoon, give the platoon leader a copy of a dropped message from the regimental commander, directing the platoon leader to change his direction of march and mission to proceed to Fort Oglethorpe Target Range and seize the stores and supplies now in the vicinity of the target butts.

The following message was released by the platoon umpires when the main body of the patrol had passed the junction of the Catoosa Target Range road with the Dixie Highway (Stone Church):

MESSAGE

28 Oct. 1936, — AM.

From: C.O. 6th Cav.

By dropped airplane message.

To: Patrol Leader, Troop —

Our observation aviation reports small hostile force in bivouac on the known distance range at Catoosa Target Range apparently guarding stores being collected there. You will proceed there at once and destroy any stores that you may find.

A
Colonel

Following are the instructions to the special umpires absent the combat problem:

Control Point No. 4 (Target Range Grain House).

At this point a special umpire with an assistant, will take charge of the platoon and will conduct the dismounted combat phase. This umpire will issue 20 rounds of ball ammunition to every member of the patrol except the patrol leader and the two sergeants. He will be responsible that twelve silhouette targets are in place as directed by the board and that, by using detail furnished, targets are pasted and ready for subsequent arriving platoons.

As soon as the combat problem is completed by the platoon, the special umpires will collect all unfired ammunition. Not to exceed one hour will be allowed for the combat firing; time to start when the special umpire takes over but not to include the time for marking targets.

Control Point No. 5 (Target Range).

As soon as the combat problem is completed, the platoon umpire will hand the patrol leader the message requiring him to bivouac for the night at the range.

He will observe manner in which the patrol establishes its bivouac scoring on the points indicated in the form.

Released by platoon umpires upon the completion of combat problem at Catoosa Target Range.

MESSAGE

28 Oct. 1936 — PM.

From: C.O. 6th Cav.

By dropped airplane message.

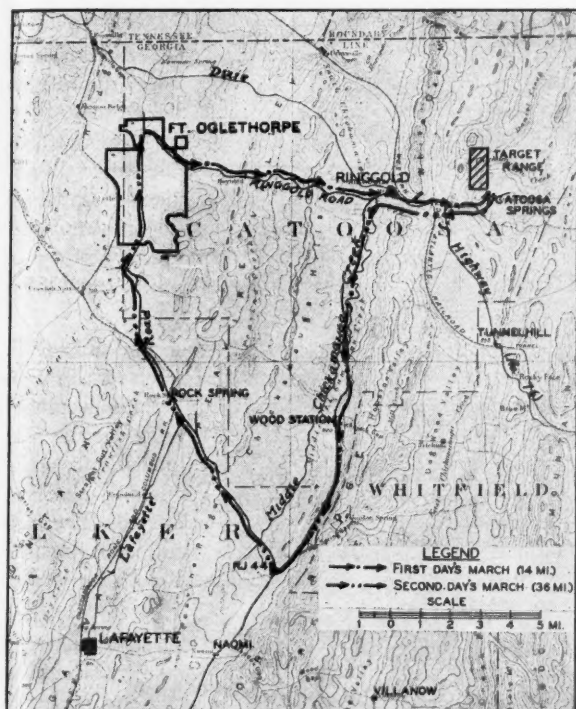
To: Patrol Leader, Troop —.

You will bivouac for the night 28-29 Oct. on the Catoosa Target Range, remaining in observation there awaiting further orders which will reach you before daylight, 29 Oct.

A
Colonel

Control Point No. 6 (Target Range).

At 10:30 PM the platoon umpire will hand the platoon



Route followed in 6th Cavalry leadership phase.

leader the message which will give him his mission for the second day of the test. He will answer the necessary questions of the patrol leader to be sure that he understands the route he is to follow. Any other questions pertaining to the interpretation of the message will *not* be answered, as Colonel A who issued the message would not be present and, therefore, the patrol leader will be required to make his own interpretation unassisted. The platoon umpire will be present when the patrol leader makes his decision and issues his orders for the second day's march and mission.

Released by platoon umpires at Catoosa Target Range:

MESSAGE

28 Oct. 1936 — PM.

From: C.O. 6th Cav.

By dropped airplane message.

To: Patrol Leader, Troop —.

Our observation aviation reports small bodies of hostile

motorized and mounted troops observed during the day in the vicinities of VILLANOW, NAOMI and LA FAYETTE.

You will proceed at —AM, 29 Oct. to reconnoiter the route: CATOOSA TARGET RANGE—RINGGOLD—WOOD STATION—RJ 44—ROCK SPRINGS—LA FAYETTE ROAD to FT. OGLETHORPE, to determine what hostile forces are in the valley of the MIDDLE CHICKAMAUGA and report promptly the strength, composition, and movement of any such forces encountered. Identifications are desired.

Upon arrival at Ft. Oglethorpe you will report to me with your platoon in front of post headquarters.

A
Colonel

The platoons were dispatched from their bivouacs on the second day at intervals of one and one-half hours, the first platoon marching at 5:00 AM.

During the march, in addition to the close observation of the general conduct of the march, the platoon umpires were instructed to note particularly the platoon's actions in reconnoitering the village of Ringgold, the watering of horses, the examination of civilians for information, and the disposition of said information as well as the defense against armored cars.

Upon arrival of the platoons at the post at the end of their marches, they were taken over by special umpires who scored them on their equipment and the outward appearance of their animals. The platoons were dismissed then until 8:00 AM next day when the animals of all platoons were inspected by the board and the post veterinarian who acted as a special umpire in rating the platoons on the condition of their animals.

For scoring, the board prepared fifteen forms which they required the various umpires to consummate and return. It would appear on the surface that such a large number of forms would make the task of the various umpires most complicated for accurate and careful scoring. The board, however, decided that more uniform scoring would be obtained by placing on the forms the detailed information that it desired together with the weight of each item. To further obtain uniformity of scoring and smoothness in the conduct of the tests, the board held prior to the tests a conference with all umpires, making a reconnaissance of the ground to be covered. At the conclusion of the tests, another such conference was held for the purpose of arriving at final scores from those tentatively submitted. The following forms were used in connection with scoring:

	Value
No. 1. Orders for march from initial point	10
No. 2. Mounted combat	10
No. 3. March discipline	6
No. 4. March conduct	2
No. 5. Security on march	5
No. 6. Reconnaissance on march	3
No. 7. Change of mission	10
No. 8. Conduct of bivouac and care of animals in bivouac	12
No. 9. Watering animals on march	10
No. 10. Actions of platoon leader on information given by civilian	3
No. 11. Defense against armored car and questioning of prisoner of war	5

SPECIAL UMPIRE FORMS

No. 1.	Equipment	2
No. 2.	Combat firing problem	10
No. 2A.	Supplementary to Form 2, above	
No. 3.	Veterinarian score	12
		100

The final percentage scores, which placed Troop E's platoon first, follow:

Platoon	Commander	Individual Phase	Leadership Phase	Total
Troop E	2d Lieutenant Charles J. Hoy	24.75	71.24	95.99
Troop A	1st Lieutenant Hamilton H. Howze ...	22.50	70.92	93.42
Troop B	2d Lieutenant John F. Franklin	23.75	67.77	91.52
Troop F	2d Lieutenant Paul M. Jones	20.00	70.61	90.61

COMMENTS OF WINNING PLATOON COMMANDER

By 2d Lieutenant Charles J. Hoy, 6th Cavalry

My first information regarding the Cavalry Leadership Test was received in August, 1936. As soon as I was designated in October as platoon leader for Troop E's unit, I began to pick my men and animals. Captain Walter Burnside, my troop commander, assisted me greatly in making my choices, allowing me to pick the best available men and animals. Picking the men was more difficult than I expected, for every man, without exception, was enthusiastic and eager to compete.

I then set to work drafting a training schedule. The condition of my horses, the work they had to accomplish on the test, and the time available for conditioning had to be considered in preparing my program. Next in importance was the scope of the exercise. I was told that it would consist of a tactical situation in which the platoon would be assigned the mission of a reconnaissance patrol, operating in hostile territory. With these things in mind, I drafted my training schedule.

During the first week, morning drill periods consisted of horse exercise, with stripped saddles, march discipline and, of course, care of animals. In the afternoons, I familiarized the men with the tests that had been held in

previous years, using issues of *The Cavalry Journal* as my references. My purpose for this was twofold: to let the men have some idea of what to expect, and to help build my platoon into a compact unit. My men were picked from all three platoons in the troop and I knew that teamwork was going to be essential to successful competition.

The next four weeks of training were somewhat different and more arduous than the first week. For, as well as conditioning my animals, other important phases had to be considered such as mounted and dismounted combat, security measures, reconnaissances of routes and of towns, avoidance of hostile aircraft and various other problems that a cavalry rifle platoon must master before it can act alone effectively and efficiently.

To accomplish this, I decided to conduct a series of problems in which the platoon was assigned the mission of a reconnaissance patrol, acting in hostile territory. (The 6th Cavalry is fortunate in that the Chickamauga National Park adjoins the post. It is possible to have a sixteen to twenty-mile march that will include terrain which is adaptable to mounted and dismounted problems, and the Chickamauga Creek for river crossings. The town of Chickamauga, five miles south of the park, is suitable for reconnoitering problems.)

2d Lieutenants Walter B. McKenzie and Robert B. Lincoln, Reserve officers attached to the troop for this year, constituted the nucleus of our enemy. Each evening I would relate to them my mission and route for the next day. Later they would decide where and what types of opposition I would encounter, but did not divulge this information to me or to any of my command. The next morning after I had given the general and special situation and issued my orders to the platoon, we would march into Chickamauga Park.

The two lieutenants, above mentioned, together with a small unit would move out ahead of us, generally in their private automobiles. At different points along my route they would interrupt my march. Without exception, the element of surprise was present in each instance. The enemy was always alert, and naturally took good humored



WINNING PLATOON FROM TROOP E, 6TH CAVALRY.

Left to right—FRONT ROW: 2d Lieutenants Hoy and Prince; BACK ROW: Sergeant Robinette; Privates Branscomb and Browning; Privates, First-Class, Gentry and Daubenspeck; Corporal Kotarski; Private Daniel; Privates, First-Class, Wilson, Williamson, and Allen; Privates Hedman, Williams, and Woods; Corporal Garner; Privates Cummings, Jay, and Hayes; Corporal Dwyer; Private, First-Class, Jones; Private Emory; Private, First-Class, Bohannon; Corporal Massengale; Private, First-Class, Hogeland; Privates Price, Travis, and Hess; Privates, First-Class, Nelson, Price, and King; Sergeant Lane.

pleasure in disrupting the march of my command. Our first encounter might be against a platoon of dismounted cavalry. After this engagement the enemy would drive off to his next position, already decided upon the night before. Our next interruption might be a scout car attack, or if we were reconnoitering a village, the enemy probably would try to bottle us up in the town. This plan had many advantages and I was more than satisfied with the results. At the critique held every afternoon, the day's problem was reviewed. Our mistakes were threshed out and approved solutions found. The interest exhibited by the platoon was gratifying. After four weeks of this type of training, we had become a compact organization and were ready for the test.

My platoon was the first to start on the competition. I reported to the umpires at control point Number 1 at 7:00 AM. There I received my orders and was advised as to my route. I, in turn, related this information to my platoon and we moved off. The formation I adopted was the normal one for a reconnaissance patrol, acting in hostile territory. My point, commanded by Corporal Massengale, and consisting of four men, preceded the main body by not more than four hundred yards. The main body was commanded by Sergeant Lane; the rear point, made up of three men under Corporal Garner, followed us at not more than four hundred yards. Accompanied by my messenger, I rode between the point and the main body. Sergeant Lane set the pace, so I was left free to move anywhere occasion demanded.

Confidence soon took the place of the initial tenseness. Morale and enthusiasm were always high, alertness and cooperation always present. For instance, at control point Number 3, I was given a message changing my direction of march. The new route was to return to the Catoosa road junction, about five hundred yards from where I was and turn right (northeast). I signaled "to the rear" and then signaled my rear point commander, Corporal Garner, to move in the new direction. There was no delay. He instantly executed my command and his unit became the advance guard for the remainder of the day's march.

We arrived back at the post at 11:00 AM, after a march of thirty-six miles, including several problems, had been made in six hours. Major Samuel G. Kielsmeier, Post Veterinarian, inspected the horses at the finish line; however, his final inspection was to be made the next morning. After stables I detailed the platoon to stand picket line guard until the final inspection. That night one horse developed a slight case of colic. He was treated by the members of the platoon and recovered sufficiently to pass the examination the next morning.

In conclusion, I believe all of us profited greatly by the test. "Win, lose, or draw," it stimulates the cavalryman's interest in his training, besides its many other benefits.

Naturally we were most pleased to win but were well aware of the fact that "Lady Luck" was kind to us; certainly the competition was too close to have been won by merit alone.

COMMENTS ON UMPIRING

By Captain H. Jordan Theis, 6th Cavalry

The umpiring presented a problem far more difficult than refereeing a polo game, in that many of the actions were as fast as polo and some took place under cover. Many more rules were in effect. These rules, taken piecemeal, often revealed a principle violated and yet the action, when judged as a whole, was nevertheless successful.

The umpiring had to be extremely fair in view of the comparatively large sums involved for the enlisted personnel and their consequent morale. Full consideration had to be given to the purposes of the test which were: "the testing of the qualities of *prompt decision, aggressiveness* and the *ability* of the officer as a leader, as shown by the degree of training demonstrated by his men during the test."

The board wisely took advantage of past experiences regarding the test and, after careful consideration of matters of record on file, divided the umpiring into the phases of simple judging, special umpiring and platoon umpiring.

The judging had to do with the various phases of the individual test and the expected judging of the animals by the veterinarian before and after the platoon test.

The special umpiring embraced the phases of inspecting equipment before and after the platoon test and the conduct of the combat problem which was fired.

The platoon umpiring covered the platoons from the time of their initial release until the start of the combat problem and again from the termination of the combat problem to the turning over of the platoons to the special umpires upon completion of the second day's march.

Obviously the element of fairness was more likely to be involved with regard to platoon umpiring than the more or less based-on-fact determinations of the judges and special umpires. The ideal solution would have been to have the same platoon umpire accompany each platoon but breaks in the weather would have worked to great disadvantage to some contestants and possibly the secrecy with which the test was conducted would have been violated had the duration been lengthened. The solution of the board was the selection of four platoon umpires of the same approximate age and experience who were, or very recently had been, troop commanders and were known to be disinterested.

A conference was held by the platoon umpires and board members at which the various control features, special instructions, study of the mimeographed forms for recording the assigned weights to each of the minor phases of the test, and directions anent the keeping of running accounts of actions taken by way of marginal notes on the forms were all given and thoroughly discussed.

At the conclusion of each day's testing the four platoon umpires went into conference with their notes, score sheets and fresh memories. If all four had not assigned the maxi-

mum weight to a particular phase, the umpire whose contestants were deficient gave the full narrative and then the other umpires threshed out the problem of appropriate cut and a vote was taken on the penalty to be imposed. Thus the judgment was not that of one man but of the entire group of umpires, and the fairness of the system was revealed by the figures where the difference in total cuts

for the highest and lowest scoring platoons for the entire actions judged by the platoon umpires was only 1.665.

In conclusion, the test was received by the whole regiment with enthusiasm and was productive of keen and friendly competition among the rifle troops and gave to them and the umpires and judges much valuable instruction.

The 11th Cavalry Test

BY CAPTAIN MARCELLUS L. STOCKTON, JR., 11th Cavalry

NORMALLY, officers and enlisted men become well acquainted during the first few years of their service with the conditions under which the Cavalry Leadership Test for Small Units is conducted. Singularly, in the 11th Cavalry, the officers competing in the 1936 test, held in late November, were not familiar with the conditions of the test, except in theory, since all officers participating as competitors, were students at West Point when the last previous test was held at the Presidio of Monterey during 1932.

Upon receipt of information to the effect that the 11th Cavalry was to be included in the 1936 test, there was published to the regiment a memorandum outlining the conditions under which competing platoons would operate. A major point to be considered was that all competing personnel would operate under like conditions and over the same terrain. A board of three officers was appointed by the regimental commander, Colonel Troup Miller, to prepare the test. The board was constituted as follows:

Lieutenant Colonel William H. W. Youngs, 11th Cavalry.
Captain Marcellus L. Stockton, 11th Cavalry.
Captain James H. Walker, 11th Cavalry.

The board was confronted with the fact that the regular practice season, with attendant absence from the post of two troops at a time, prevented holding the test earlier than November, while the anticipated rainy season in November rendered unlikely the probability of competing platoons operating under like conditions unless all platoons executed each phase of the test on the same date. The board recommended, therefore, that the test be held on November 23d, 24th, and 25th, and that all platoons inaugurate the test on the same date separated by a minimum time interval of one hour. This recommendation was approved by the regimental commander, and plans were drafted accordingly.

INDIVIDUAL PHASE

The individual phase for platoon commanders consisted of two requirements and involved the traversing of difficult terrain while both mounted and dismounted. The course for the *mounted requirement* was slightly over five miles in length. It necessitated the negotiation of ob-

stacles of varying nature and degree, and included firing with the pistol at silhouette targets. The usual penalties were assessed for faults at obstacles or misses with the pistol. Twenty-five minutes was allowed as a maximum time limit for completing this requirement, which fact required an average speed over the course of twelve miles an hour. The course interspersed with obstacles, was laid up and down steep grades, over narrow trails through the Del Monte Forest, across sand dunes bordering the Pacific Ocean and finished over a hard-surfaced road. None of the individual officers competing in this test had completed four years of service and there were no graduates of the Cavalry School competing since there are no officers of lieutenant grade now serving in the regiment that have been graduated from the Cavalry School. All competitors negotiated the entire course within the prescribed time limit and with no faults assessed except for targets missed with the pistol.

The course for the *dismounted requirement* was two and one-fourth miles in length. Officers were allowed twenty-five minutes, as a maximum time limit, for completing the course. The course was laid over a hard-surfaced road, a sand trail leading over Huckleberry Hill, which rises 311 feet from the surrounding terrain in 600 yards horizontal distance, thence across country through a forest back to the starting point. There appeared to be no doubt as to whether this requirement tested the physical ability and endurance of the competing officers. No faults, however, were assessed against any officer during this phase, while all finished the course in less than twenty-four minutes.

The individual phase was completed by all entries with only two points difference separating first and last place which was very gratifying since this not only testified to the excellent physical condition of the officers but also did not penalize any platoon or its personnel. This fortunate outcome operated to keep morale high for the platoon phase to follow. This feature, it is believed, is well worthy of the consideration of boards concerned with drafting regulations for conducting such a test.

LEADERSHIP PHASE

The platoon phase was initiated the day following the individual phase. Platoons were considered as operating

in hostile territory with enemy forces employing ground troops and aircraft in the vicinity and were required to march forty-two miles under these imposed conditions. The route travelled was generally impassable for any wheeled transport. Part was over unmarked trails through manzanita and button sage, part through live oak forests with dense underbrush, part through heavy sand, and part over concrete highways. A portion of the route was traversed during darkness. Twelve tactical situations, involving two situations calling for the use of ball ammunition,

sented to officers of limited service and experience, was obviously no sinecure. The twelve situations presented during the test and the solutions thereto naturally cannot be incorporated within a narrative description of limited length. One situation only is described, therefore, as being more or less typical of the character of the tactical situations used. Photographs of the terrain, where this illustrative situation was presented, are included to amplify the description.

The situation was designed to call for the use of ball ammunition, in a dismounted fire fight, by the platoon acting as the advance party of an advance guard. The action took place in a defile, the floor of a canyon, approximately three hundred yards wide with no opportunity for concealed movement out of the canyon other than by a trail leading out



What the enemy could see from the left of his position 350 yards away.

tion, were presented during this phase of the test. The establishment of an overnight camp was involved.

The tactical situations presented for solution by the platoon commanders required generally:

- (1) The formation and conduct of the platoon as the advance party of an advance guard.
- (2) The disposition and operation of the platoon as the support of an outpost.
- (3) The formation and conduct of the platoon on a reconnaissance mission.
- (4) The disposition and conduct of the platoon while executing a mission of seizing and holding a bottleneck in mountainous terrain pending the arrival of its squadron.

During the execution of the above missions a dextrous enemy was encountered at various times, in small numbers and in strength, mounted and dismounted, and when employing airplanes and mechanized vehicles.

The rather formidable array of enemy situations, pre-



What the enemy could see from the right of his position 550 yards away. C indicates where the point commander drew hostile fire.

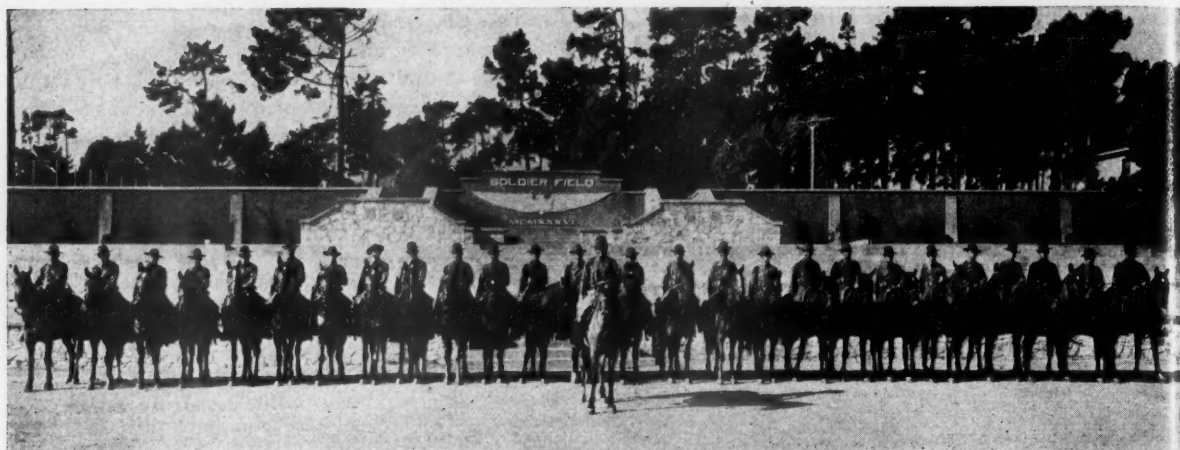


Heldrick & Heldrick

at a point approximately opposite the assumed location of the support, eight hundred yards to the rear of the advance party.

The situation was presented to the point commander, corporal of the leading squad, when the leading troopers, having just completed a bound, drew hostile fire. The corporal was told:

The enemy force encountered is considered to be not less than a platoon with automatic weapons and is deployed astride your axis of advance.



11TH CAVALRY'S WINNING PLATOON (FROM TROOP B).

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LEFT TO RIGHT: Sergeant Ambrogio; Corporal Maurin; Private Jacobelli; Private, First-Class, Thornton; Private Hicks; Privates, First-Class, Shepard and Hall; Privates Burke and Bright; Corporal Blackmore; Privates, First-Class, Hendrickson, Bowen, Bickford, and Moldonado; Privates Burke, McHugh, and Coleman; Corporal Hettrich; Privates, First-Class, Norwood and Tyler; Private Hamilton; Private, First-Class, Oakley; Privates Hulphers, Cassidy, and Town; Sergeant Shantz; Lieutenant Barnes in Command. (Private Havens, a member of the platoon, not present.)

The point commander was then given a written copy of the verbal information presented to insure that no controversy would later arise over just what information had been received by the point commander after this information had reached the platoon leader. At the location on a hill, where this information was presented to the point commander, only one silhouette target, representing the enemy, was visible. Twenty-five yards to the corporal's right, and from a concealed position, all but two silhouette targets, representing the enemy position, could be seen, while sixty yards to his left and likewise from a location affording excellent concealment all targets were plainly visible. Movement directly to the front, after a few yards advance was on a forward slope and exposed to the view of the enemy. Any location for reconnaissance, chosen after moving directly forward, did not permit an accurate estimate of the extent or location of the position held by the enemy due to a low, barren ridge obstructing the view. The enemy position, outlined by silhouette targets and with flanks well secured, was three hundred and fifty yards to its left flank and five hundred and fifty yards to its right flank.

After presenting the situation umpires did not interfere with either the action taken or the orders issued either by the point commander or the platoon commander other than to prevent any overhead fire. The situation, unobscured with the fog of war, required, primarily, only a careful and studied reconnaissance. When and if this was successfully accomplished, the problem became an almost mechanical employment of the platoon in a simple combat exercise. Lack of adequate reconnaissance and with no "eye for the terrain" rendered the satisfactory employment of the platoon, by the platoon leader, a difficult task. The *Umpire Guide*, published by the board that prepared the test, listed thirty-two specific items with a maximum possible score for each and required a numerical rating for each item by the umpires who judged the platoons

in this situation. The action taken and orders issued in this as well as other vexing situations were better than might be reasonably expected.

UMPIRING

It was anticipated by the board that some situations would be of such character that the services of several officers, acting as umpires therefore, would be desirable. To accomplish this presented a rather difficult problem with the present officer strength of the regiment and coupled with the fact that for the platoon phase it had been determined to ask for the detail of only such officers as were not assigned to troops or squadrons furnishing competing platoons. The problem was solved by adopting an umpire system, and incorporating within the *Umpire Guide*, published for the test, certain data that contributed to the furtherance of the attainment of this objective. A description of what was done follows.

A platoon umpire was assigned initially to each competing platoon. These platoon umpire assignments were changed from one platoon to another during the conduct of the test, although maintaining throughout the entire test a platoon umpire constantly on duty with each platoon. Special umpires were, in addition, detailed to act as boards to score platoons for specific situations. All situations called for ratings on the items, always to be considered, such as flank security, reconnaissance, use of cover, promptness of action, clarity and form of orders, etc. These constantly recurring items were given an alphabetical designation in the *Umpire Guide* in all situations, thereby permitting a composite rating for any such item. The composite ratings were determined by extracting individual items bearing like alphabetical designations from all situations, the sum total of the awards for which provided the rating for any specified item. The final rating awarded was then not the opinion or judgment of an individual

umpire but represented a cross-section of the judgment of all umpires engaged.

The services of nineteen officers, including the regimental and post commander, the entire regimental and post staff and four reserve officers undergoing active duty training, were utilized as umpires at some time during the test.

INCIDENTS

Incidents of human interest occurred with entertaining frequency. In one tactical situation a platoon commander misinterpreted the requirement, selected an excellent dismounted defensive position but, unfortunately, faced one hundred and eighty degrees in the wrong direction and as a result turned his back to an assumed enemy employing fast-moving mechanized vehicles.

In another instance an umpire, utilizing a scout car for transportation, inadvertently entered a narrow road between two platoons and later found the road blockaded both front and rear, not in theory, but with large road blocks made from live oak logs too heavy to be removed by one man. Competing platoons had seen the movement of the scout car and had assumed it was representing an enemy vehicle.

GENERAL REMARKS

The test stressed certain deficiencies unfortunately present in most assumed tactical situations in spite of repeated emphasis made during training, namely:

- (1) A lack of adequate and thorough reconnaissance.
- (2) Failure to take full advantage of the terrain and the cover afforded thereby.
- (3) The importance of securing hits on targets, in the minds of individual enlisted men, assumed such proportions that other combat considerations of vital and equal importance had no particular significance.

The value of the test from a training standpoint can hardly be overestimated. The competitive interest of all participants, the interest of parent troops, and, upon completion of the test, the post mortem discussion by all personnel as to what should have been done in various situations, all have a decidedly beneficial effect on the tactical training of the command. Recognizing this, the regimental commander directed the board that prepared

the test to conduct a tactical ride over the terrain where the test was held and to present on the ground what the board considered to be a satisfactory solution to the problems introduced during the test. Platoon leaders were required to be present. Other officers also attended.

RESULTS

The weights assigned for the two phases of the test were:

- 250 points for the individual phase.
- 750 points for the platoon phase.

It may be readily seen from the scores attained by competing platoons that the outcome remained in doubt throughout the contest. Officers and men had prepared for the competition with painstaking thoroughness. All contestants, including mounts, completed the test with credit and without casualty, testifying to anticipatory planning. All participating personnel received the enthusiastic commendation of the regimental commander for an exacting task well done.



2d Lieutenant Frederic W. Barnes, 11th Cavalry, taking the first obstacle in the individual phase, mounted.

RESULTS

Platoon	Commander	Score
Troop B	2d Lieutenant Frederic W. Barnes	89.8546
Troop F	2d Lieutenant Donald O. Vars	83.7163
Troop A	2d Lieutenant Thomas D. Gillis	82.7166
Troop E	2d Lieutenant Travis L. Petty	82.2960

The 12th Cavalry Test

BY 1ST LIEUTENANT SAMUEL L. MYERS, 12th Cavalry

UNUSUAL interest attached to the Cavalry Leadership Test for Small Units conducted at Fort Ringgold last November since this was the first such test ever held at this station. Even a casual inspection of the local terrain, range facilities and road system, necessitating a deviation from the details of tests normally conducted at other stations, will reveal the difficulties

facing the board which planned this first test here.

Fort Ringgold is situated in the south central part of Starr County, Texas. The county is very heavily covered with the thickest, thorniest brush known to man. It is extremely difficult to move cross-country at slow gaits and impossible to move with speed. Roads, in the general opinion of what roads should be, are practically nonex-

istent. There is one highway running northwest and southeast across the county along the river, one gravel road running north from Rio Grande City to a rather indefinite demise in the northern part of the county and one gravel road running north from Garceno to the county on the north. The rest of the highways are trails varying from a cow path to one passable by car, if one is not too particular about the safety and condition of his car. There is no target range available, the nearest one being at Boca Chica, 124 miles away.

With these few illustrative facts in mind, let us now continue with our narrative of what actually happened.

WHAT ACTUALLY HAPPENED

Early in August, instructions were received to conduct the test, and a board consisting of Lieutenant Colonel John A. Considine, Major George P. Cummings and 1st Lieutenant Samuel L. Myers, was immediately appointed to draw up the plans and conduct the test. The week ending November 28th, was decided upon for the test in order to give platoons the maximum opportunity to train following the target season which ended about October 5th.

Plans for the individual phases were fairly simple and were completed in a short time. Reconnaissance was then started for a route over which the platoons could march about 50 miles without back-tracking, where water and a camp site was available, for open ground large enough to stage a mounted attack and for other terrain which would best lend itself to the tactical problems to be demonstrated. It was found that all these features could not be combined in one exercise, so the march was built around the available water and the one piece of ground which was believed adequate for mounted combat.

INDIVIDUAL PHASE

This phase consisted of a cross-country course of approximately five miles on which were installed obstacles and targets which were designed to test the horsemanship, endurance, marksmanship and judgment of the individual.

In all there were seven obstacles and seven pistol targets. The obstacles consisted of natural jumps, a stream, an extremely steep hill, a long slide, a ditch and a great deal of chaparral. The pistol targets were so placed behind bushes and in unexpected places that it was necessary for the rider to be very much on his toes to find them. It might be stated here that one of the prettiest pieces of mounted firing ever seen by the judges was demonstrated on one of these targets. The platoon commander had passed the target before he saw it but he turned quickly and, firing straight to the rear over his shoulder, hit the target. The results were most gratifying, with one platoon scoring 23 per cent and the other 22.42 per cent out of a possible 25 per cent.

On Sunday, November 22d, the weather man played his usual prank and turned on a lusty norther so that when the platoons moved out on the mornings of November 23d and 24th, a most miserable day and night was in

prospect for each. (For the sake of avoiding repetition, the platoons starting on November 23d and 24th, respectively, will be considered in the discussion as having started simultaneously).

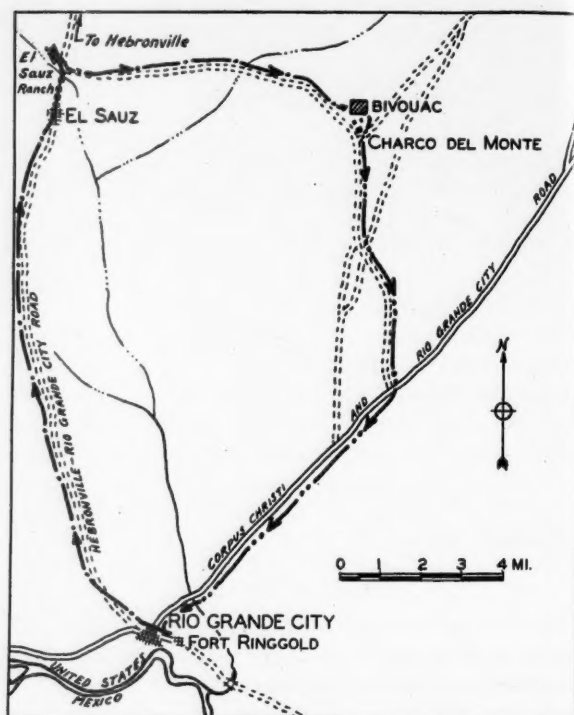


FIGURE 1—Route of 12th Cavalry leadership phase.

LEADERSHIP PHASE

The general and first special situation were given to the patrol leader at 5:00 PM, the day before the march was to commence. The information contained thereon was meager but each platoon commander was informed that further instructions would be given at 7:00 AM, the following day at their respective orderly rooms. With this, each issued a brief warning order to the effect that breakfast must be finished before that hour, and the platoon ready to saddle at any moment thereafter.

At 7:00 AM, the platoons (hereafter to be known as Patrols Nos. 1 and 2) received their final instructions, which directed a march on Hebronville via El Sauz at 7:30 AM, the former about 72 miles northwest of Fort Ringgold. Each patrol leader estimated the situation very accurately and calling in his noncommissioned officers read the order to them, stating that the distance to Hebronville was such as to preclude their making it in one day and that, doubtless, further information would reach the patrol somewhere along the route. Both patrol leaders noted the fact that the rate of march was not included in the squadron field order and asked about it. They were told by the umpire to select their own rate of march. The patrol leader then directed the platoon sergeant to march the platoon to stables, saddle and lead out, stating that he would issue his field order to the assembled patrol.

Neither lieutenant inspected his animals before saddling.

The weather conditions on the respective days of starting the march out were practically the same, the only difference being a rather chilling wind blowing the day Patrol No. 2 left the post. It caused no discomfort however; that is, during the day.

Up to this point both lieutenants did almost the same thing. Thereafter slight differences began to appear. No. 1 made a rather casual inspection of his men, animals and equipment. No. 2, a much more thorough one, reporting to the umpire slight defects of three horses which he wished the umpire to note before starting.

The field orders issued by each patrol leader were excellent. No. 1 selected 6 miles per hour as a rate of march, but had to change it to $5\frac{1}{2}$ after the second halt, and went back to 6 after feeding. No. 2 started at 5 miles per hour and increased it to $5\frac{1}{2}$ after the noon feed. No. 1 reached the bivouac twenty minutes earlier on its first day's march than did No. 2. The rate of march, however, had but little to do with this twenty minutes difference, as many other factors entered, which will be brought out later.

Both sent their advance guards out as they left the stables, although an outpost line was mentioned in the squadron order. It would have been better to have left the platoon intact until the outpost was reached, but there is nothing tactically wrong in moving as they did. Both lieutenants reported to the outpost commander as they passed, telling him their missions and asking him if he had further information for them.

Neither platoon had a gait-setter which is considered an omission. Both led their platoons throughout the march, leaving the sergeant file closer to check on march discipline. It is believed that it would have been better had the patrol commander ridden about half way between his point and the main body, with a gait-setter to insure the steady march of the latter. It was observed that both lieutenants had to pay too much attention to their watches in order to effect changes in gait at the proper time. This detail should have been given over to a gait-setter, leaving the officer greater freedom for other and more important duties.

No. 1 did not inspect his platoon at the hourly halts. Neither platoon dismounted to lead at regular periods, although some leading was done.

ARMORED CAR ATTACK

The first special situation was the armored car attack. This attack occurred at a point seven miles northwest of Rio Grande City on ground which had been purposely selected by the board to give the leaders an opportunity to make what was considered, both a correct and an incorrect solution. There was a straight stretch of road about a mile in length. On one side the ground sloped away to the east to a heavily brush-covered ravine about 500 yards from the road. On the west of the road there was some scattered brush and cactus, not at all good cover for pro-

tection from an attack by mechanized vehicles (See Figure 2). The scout car in each case was concealed around a bend in the road and it attacked each point at A. The solution of this problem was nearly the same in each case and was considered excellent. In Patrol No. 1, part of the point dispersed as soon as the scout car attacked, to the cover in the ravine east of the road while the remaining three men threw dummy grenades at the car. It is believed that these grenades would not have been effective, for the men throwing them were under fire long before the car was within their range. The point of Patrol No. 2 completely dispersed under cover to the east. Both patrols, No. 2 from B and No. 1 from C, took cover in the ravine. This dispersal was so rapid in each case, that by the time the car came around the bend at A there was no target. Within 10 seconds both patrols had completely disappeared and the only evidence of their presence was the fire brought to bear on the car. Only one man of

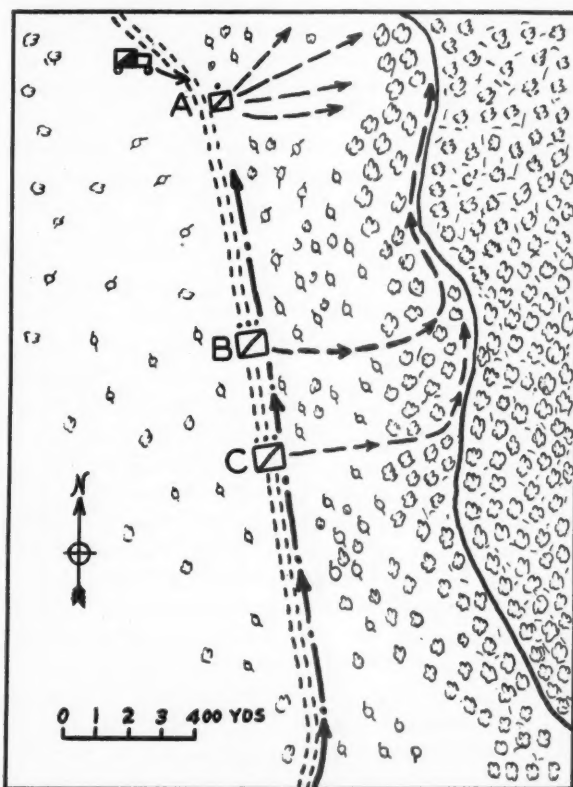


FIGURE 2—The armored car attack.

either patrol was seen after the attack had been launched and he, poor unfortunate, had difficulty negotiating a cactus bed and his horse had left him in it.

Arrangements had been made for some time in advance for a plane to assist in the test, but as none appeared either day, the attack had to be simulated by the umpire. It was evident to the latter that great stress had been placed on this training, for hardly had the entire warning been given "attack plane coming from the right flank" than the road was clear and not a trooper could be seen, al-

though the noise of the men crashing their way through the dense brush indicated that they were continuing in the direction of march. Both platoons received 100 per cent on this phase, and deserved it.

RECONNAISSANCE OF A VILLAGE

The next situation involved the reconnaissance of a village (El Sauz) and the obtaining of identifications.

As each patrol approached El Sauz, a hamlet of some 100 people, the leader was met by an umpire who stated that he was Senor Martinez, that he lived on a near-by ranch and that he had some information of enemy patrols. Upon being questioned, he disclosed the fact that a group of enemy had been in El Sauz the previous day and had moved to the east. He also stated that the enemy had been active around the town for some time. It was believed that this was sufficient warning to cause the leaders to be very cautious in approaching the town. One entered in an excellent manner. The leader observed the town through glasses from a distance and, having assured himself that it was apparently clear, sent his point in rapidly to reconnoiter under cover of fire from the remainder of the patrol on high ground overlooking the town. Upon receiving a report from the point that all was clear, he moved in rapidly with the patrol, posted march outposts and proceeded upon a thorough reconnaissance. He visited the post office and a simulated telegraph office and located and questioned a wounded enemy trooper. He then commandeered a car and sent his report back to the squadron commander.

It is believed that the other patrol was a little hasty and less careful in its action. It rode into the town without halting outside to reconnoiter, the patrol was bunched and halted in a large group in the center of the town and a most hasty and incomplete reconnaissance was made even after the town was entered. However, this patrol did find the wounded enemy trooper, questioned him thoroughly and sent a message to the squadron commander by a commandeered car. Later developments revealed that there was every reason for being cautious for at the very time that the town was occupied, an enemy patrol was approaching from the east, only one mile away.

Upon completion of this reconnaissance, the patrol leader was informed that there was excellent water at El Sauz Ranch if he desired to avail himself of it. Both decided very properly to water. The patrols had covered 18 miles at this point. No. 1 did not desire to feed here, while No. 2 did. It is believed that the decision of No. 2 was the better, as the ranch afforded perfect cover from all observation and march outposts were so established as to protect the patrol from surprise. However, for "control" reasons neither patrol was permitted to delay longer than to water the animals. As stated above, march outposts were properly stationed and No. 1 started right in to water his entire patrol, which was considering a satisfactory solution. No. 2 however, was more cautious. He kept his patrol under cover and sent in one set of fours at a time to water. This, of course, caused a longer delay at El Sauz than was

considered justifiable, but his decision was undoubtedly tactically sound. Each patrol scored 100 per cent on the watering phase.

Watering having been completed, the leader was handed a message from the squadron commander to the effect that Charco Del Monte had been raided early that morning and to proceed there at once. This involved back-tracking about one-quarter mile and changing the direction of march to the east. (The original direction was northwest.)

The patrol had marched but about one mile in the new direction when the point observed a single mounted enemy on the far side of a large piece of open ground. (See Y, Figure 3.)

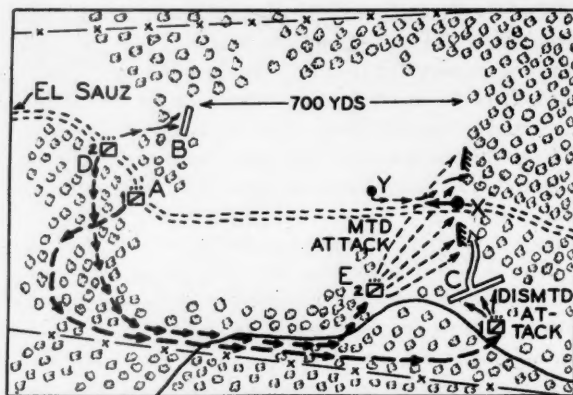


FIGURE 3—Two methods of driving out an enemy patrol.

Both points pursued the enemy trooper who disappeared in the heavy brush. As the points approached this brush, they were fired on by a machine gun and eight riflemen in position. In each case, the leader of the point now threw discretion to the winds and relied solely on his valor, for neither scattered and took cover to the right or left flanks where they could safely observe, but plunged into the enemy line and went on through to the led horses. This, of course, caused some confusion and delay to the patrols, for no messages came back from the points. This made it necessary for patrol leaders to send out more reconnaissance detachments to determine the exact location of the enemy and his strength. Once this reconnaissance had been made, and it was eventually complete in each case, the patrol settled down to its solution of the problem.

From this point, the solutions were radically different. As has been pointed out previously, a great deal of time was spent by the board finding a piece of ground which was ideal for a mounted attack. It was believed that in this case, a mounted attack, by at least part of the patrol, was essential. As later developments will show, the dismounted attack was much too slow.

In the case of Patrol No. 1, when its point was destroyed, the head of the patrol was at A (Figure 3). The patrol leader first decided to put a squad at B to put down supporting fire on the enemy position at X. He changed

his mind and moving by the covered route indicated on the sketch, took up a position at C and attacked dismounted. This attack, when launched, was most effective and well handled, but a period of 36 minutes was consumed and it was believed that the enemy would have



Patrol No. 1 waters.

withdrawn before the attack was launched. It can be said, however, that the movement from A to C, and the launching of the dismounted attack showed excellent training and discipline on the part of the platoon, for at no time was there any confusion or unnecessary noise and the cover available was utilized to the best advantage.

While all this action was going on, the point, which had gone on through the enemy line, had found the enemy led horses and had turned them loose about one and one-half miles down the road thus creating a desire on the part of the enemy to carry the engagement to an even more personal and vigorous conclusion.

Patrol No. 2 solved the problem in what was considered a most excellent manner and had it not been for the fact that its point was also drawn into a trap and destroyed, its score would have been perfect.

This patrol was fired on when the main body was at D. The patrol leader, without waiting to see what had happened to his point, galloped to the vicinity of B and made a brief reconnaissance through glasses. He then posted half a squad dismounted at B with instructions to fire as rapidly as possible on the enemy at X and taking the remainder of his platoon, moved rapidly under cover to E. At this point he launched a mounted attack which came as a complete surprise to the enemy. After overriding the enemy position, he returned, and, with part of his patrol, mopped up, while the remainder was sent to capture the led horses. The whole attack consumed 16 minutes and, other than the remarks on the loss of the point, there was no criticism by the umpire.

At the conclusion of this phase, an armistice was declared to allow the patrol to feed grain and the men to eat their lunches. This was deemed advisable in order that the leader might have his entire patrol together for a detailed inspection. Both leaders availed themselves of this opportunity. No. 1 unsaddled and gave his animals a thorough grooming and a close inspection. No. 2 did not unsaddle, nor did he groom but did inspect minutely.

Field conditions were resumed after feeding, and, finding excellent going for the horses, each platoon increased its rate of march. The country was entirely new to every member of both patrols. The road in some places was little more than an indistinct trail, with several other trails branching out therefrom. The map furnished was of no real use, due to its inaccuracy. For this reason the umpire had to be impressed as a "native guide," and, although he had been over the route a month before in a scout car, he missed the road, but succeeded in finding a better and shorter one.

The route led through an area covered with a dense growth of tall cactus, mesquite and chapparral, necessitating in some instances a column of troopers, and throughout the 9-mile march from El Sauz to Charco del Monte a material reduction of distance between point and main body or the use of more connecting files, both of which were resorted to. This was undoubtedly the pleasantest part of the entire march.

The patrols bivouacked at Charco del Monte that night, after marching about 27 miles.

It is a peculiar coincidence, but the actions and dispositions of both patrols after their arrival at Charco del Monte and during the forced march back to Fort Ringgold were so similar that a single narrative of events will adequately cover both.

The patrols reached the rancho at 2:30 PM and 2:50 PM, respectively. They were preceded by an advance guard which was well disposed. The main body was halted some 300 yards from the ranch while the point made a very thorough reconnaissance of the ranch houses and the immediate vicinity.

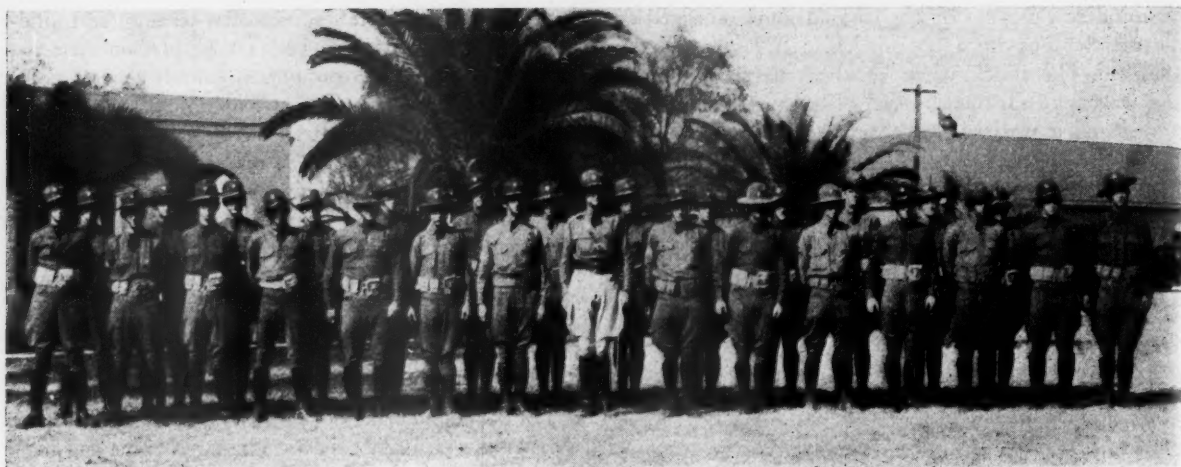
Information was sent back that the ranch was unoccupied, whereupon the patrol was put in motion and proceeded on its mission.

Upon the arrival of the patrol commander near the ranch house, he was met by an umpire and informed that he would camp there for the night.

He halted the advance guard and posted it as a march outpost, then proceeded to make a thorough reconnais-



Results of the individual phase were excellent.



WINNING PLATOON (FROM TROOP E) IN 12TH CAVALRY COMPETITION.

LEFT TO RIGHT: Private Rogers; Private, First-Class, Sullivan; Corporal Fitzgerald; Privates Walton, Broome, Crum, and Langston; Privates, First-Class, Brown, Stockton, and Nugent; Private Bryant; Private, First-Class, Truner; Sergeant Patterson; Private Poteet; 1st Lieutenant LaPage; Private Caldwell; Sergeant Rademacher; Private Matthews; Private, First-Class, Dillon; Private Cryer; Corporals Young and Pope; Private, First-Class, Kirkland; Privates Boswell and Fontenot; Private, First-Class, Van; Private Williams; Private, First-Class, Clark.

sance of the ranch and immediate surrounding country.

A temporary bivouac was selected under some large trees which afforded ample cover from daylight observation. Horses were unsaddled, weight being removed gradually, and grooming commenced. The horses having cooled off, were then watered and fed forage which had been requisitioned from the ranch owner. This completed, the march outpost was relieved by a regularly detailed outpost.

After caring for the animals of the march outpost, the men were fed rations which were also obtained from the ranchman on requisition. Then the patrol settled down for the night.

They were not to stay settled down, however, for about an hour after dark the platoon was moved several hundred yards into a new bivouac where a better defensive position was found in case of a night attack.

At 4:00 AM the following morning the patrol leader was informed by the umpire that he would be ready to march by 5:00 AM.

The patrol was awakened, horses and men fed, the horses saddled and ready to move at 4:55 AM. Considering the fact that it was very dark at this hour, the rapidity of getting ready to march, with the absence of noise or confusion, speaks well for the training in this phase of the test.

At 4:55 AM the patrol leader received a message which directed that he return to Fort Ringgold by 7:45 AM.

The platoon leader issued his march order at once which included a rate of march of $6\frac{1}{2}$ miles per hour and moved out promptly at 5:00 AM. It was still very dark and about one hour and thirty minutes of this march was accomplished in darkness.

The rate of march generally was kept up throughout and the platoon reached Fort Ringgold at 7:45 AM with

men and animals in fine shape and in condition to continue the march.

Immediately after the arrival of the patrols in Fort Ringgold, after having marched $16\frac{1}{2}$ miles in 2 hours and 30 minutes, all animals were thoroughly inspected by the veterinarian. He found no sore backs, no lameness and no injuries whatsoever which could be credited to poor horsemanship.

This part of the test was concluded on November 25th, but there still remained to be completed a combat problem with ball ammunition. Since there is no range at Fort Ringgold, it was necessary to move by truck to Boca Chica and conduct the problem there. An armistice was declared over Thanksgiving. Then on the morning of November 27th both platoons were loaded in trucks and moved to the range at Boca Chica.

Hereafter, the problem ceased to have any apparent relationship to the test as it had so far been conducted. The ground at the range at Boca Chica is perfectly flat without the least semblance of a bush and scarcely any grass. In fact it is a tidal flat left by the Gulf and at time is completely under water. It is easy to see that by no stretch of the imagination could this terrain be likened to that over which the previous phases of the test had been conducted. However, a tactical situation was evolved whereby the platoons were required to debouch from the cover of the highway bordering the southern edge of the range and to advance across an open plain approximately 600 yards in width. In opposition was an enemy in position on the same flat. This enemy was outlined by 18 kneeling silhouette targets in one group with 7 prone silhouettes as a flank group about 200 yards to the left flank. The problem was controlled by observation of the fire laid down on the enemy and the length of time in each firing position. It was found that, in spite of the apparent baldness of the terrain, occasional bunches of salt grass

offered some concealment and as the men entered wholeheartedly into the spirit of the problem, this small cover was utilized to its utmost. At the completion of the problem it was revealed that one platoon had hit all targets and scored 238 hits out of 810 shots fired and that the other platoon had hit all but one with a score of 180 hits.

The 1st Platoon, Troop E, commanded by 1st Lieutenant John J. LaPpage, was declared the winner with an Individual Phase score of 23 per cent and a Leadership Phase score of 68.56 per cent, making a total score of 91.56 per cent. The 1st Platoon, Troop F, commanded by 2d Lieutenant Edgar J. Treacy, Jr., made an Individual Phase score of 22.45 per cent and a Leadership Phase score of 63.49 per cent, giving a total score of 85.94 per cent.

GENERAL COMMENTS

In closing there is very little to be said, since a discussion of the pros and cons has been carried on concurrently

with the narrative. It is believed that the problem was highly educational to participants, umpires and observers. Generally speaking, the solutions offered by both platoons were excellent. It is felt that the lack of adequate range facilities at this station was a decided handicap, and it is sincerely hoped that this situation can be remedied in the near future. Administrative details were handled in an excellent manner without the least confusion or delay. Provisions for the "enemy" and the feeding of men and animals were handled by establishing two camps, one at El Sauz for the enemy and one at Charco del Monte for the night camps.

Taking everything into consideration, the test was a great success. The leadership and energy displayed by the officers, the enthusiasm and training exhibited by the men and the cooperation of all those who helped to conduct the test was of the highest order. If this be a fair sample of ability, and it is sincerely believed that it is, the Army may well be proud of the 12th Cavalry.

The 14th Cavalry Test

By 1ST LIEUTENANT MILTON A. ACKLEN, 14th Cavalry

THE Cavalry Leadership Test for Small Units was held at Fort Des Moines during the period from November 9th to 11th, inclusive. The horse troops stationed at Fort Des Moines consist of the 14th Cavalry (less the 1st Squadron) so the competition at this station was between a platoon from each of the rifle troops, E and F.

Approximately one month was allowed for exclusive preparation for the test. Inasmuch as the annual practice march had been completed on October 10th, this year, the men and animals were in excellent condition. Practically the entire time was spent in perfecting the squads and the platoons in their combat duties.

INDIVIDUAL PHASE

The individual phase began at 8:00 AM, November 9th, the platoon leaders drawing for the post position. Contestants, with full field equipment, including twelve rounds of caliber .45 ammunition (five rounds loaded in their pistols and seven rounds in their extra magazines), left the Veterinary Hospital at one-half hour intervals. Each contestant was required to ride cross-country, taking twenty-five obstacles in three and one-half miles at a sixteen mile gallop. Stopping at the pistol range, he secured his horse and entered what he thought was a friendly tavern, in order to obtain information and allay his thirst. Here he was surprised by an enemy patrol (represented by five silhouettes) which appeared on a rise twenty-five yards away. Using the five rounds which were in his pistol, he quickly disposed of the five hostiles. Then running to his horse, he fled, following a road sketch handed him. The route, five and one-half miles long, ended at the rifle range and was to be covered in forty-one minutes. Upon entering the rifle range, he increased his gait to

twelve miles an hour and followed a flagged course which led him into an enemy patrol. Taken by surprise, he drew pistol and charged, shot his way through, forded a creek and continued on his way until he arrived at the target range gate. There he observed two enemy scouts, dismounted and retreating to the south. The lieutenant quickly dismounted, and, finding a rifle and ammunition available, immediately opened fire; first at 200 yards, and then at 500 yards. This rifle firing completed the individual phase. The results showed the contestants finishing "neck and neck."

LEADERSHIP PHASE

Due to the limitations imposed by safety requirements and restricted range facilities at Fort Des Moines and vicinity, the combat problem was broken down into separate phases. The tactics, orders, and the execution of these orders were scored as the situations occurred, but the result of the firing was measured in advance by a musketry problem, fired by each squad the afternoon of the same day as the individual phase. Each squad fired this problem and the results were consolidated to get the platoon score. All the elements of combat firing were incorporated in the problem, particularly emphasizing fire distribution and fire control. In addition to credit being given for the number of hits on a target, a proportionate bonus was given for the number of targets hit at each range. The scores of each squad varied considerably, but after totalling for each platoon, the aggregate scores differed less than one-tenth of one per cent. Consequently, neither platoon started the leadership phase with a decided lead; in fact, the final computations showed that the lead "see-sawed" back and forth, first with Troop F

in the lead, then Troop E, and so on until the final phase, the inspection of horses and equipment.

Each platoon was composed of three squads, one messenger, two sergeants, and one lieutenant. Two extra horses without equipment or packs were taken. Full field equipment, with a cooked lunch in the saddle bags, in addition to the reserve ration, was required of each man.

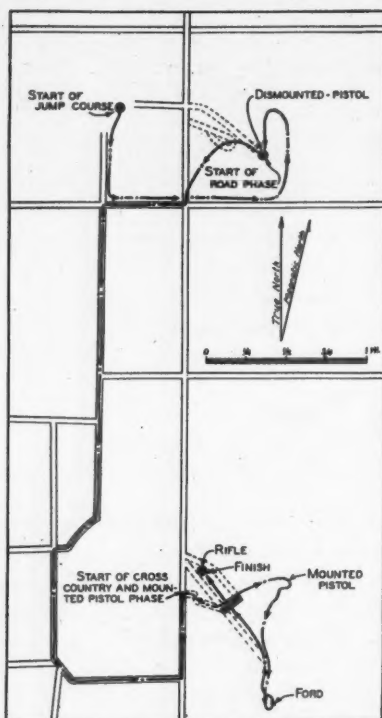


FIGURE 4—The individual phase at Fort Des Moines.

Before the start of the leadership phase, all horses of both platoons were examined by the veterinarian, and notice taken of all scars, blemishes, and injuries, so that there would be no question as to whether or not a horse was injured during the test. Immediately after the preliminary horse examination, each platoon was given orders to stand by, but not to saddle until ordered to do so. The initial instructions embodied a state of war, with the troops halted temporarily in enemy territory.

At 12:00 noon, the first platoon was given orders to move at once. A reconnaissance mission was assigned, giving the probable duration as forty-eight hours. A map was provided with a marked route, control points to be reached, and the time of arrival at each. The first platoon was on the road at 12:30, one-half hour after receiving the order at the troop orderly room. The second platoon received its orders at 1:00 PM and was on the road in about the same length of time.

Those familiar with Des Moines know that the surrounding country is dotted with small farms which are well fenced. Dirt roads which on the map show straight and parallel have a disconcerting tendency to vary from the straight and narrow and refuse to show a close resemblance to their picture on the map. The weather was

clear and cold with temperatures hovering around freezing.

After proceeding about nine miles on the route two enemy stragglers were encountered. They proved to be deserters from the X regiment, Red Cavalry, who reluctantly admitted that their outfit had been in the vicinity of Valley Junction that morning. Attempts to elicit further information by means other than moral suasion were stopped by the umpires, and after disposing of the prisoners the platoon continued on its mission.

The passage through Valley Junction required a hurried reconnaissance of the Post Office and Railroad station. Just after leaving Valley Junction, the dirt road winds through a thinly wooded section bordering a creek. The road was being graded, and the property fences were missing. While the platoon leaders were still thinking of the last situation and writing messages, an enemy armored car suddenly appeared around a bend in the road astride the route of march. Its presence was quickly discovered and signals promptly transmitted. Meanwhile, the advance guard disappeared off the road and the main body promptly followed suit. They galloped into the woods across a dry creek bed, dismounted, and opened fire. Both platoons were totally unaware of the proximity of enemy armored vehicles, even though they had been warned by the children (supposedly hostile) in Valley Junction that armored cars were in the vicinity. Only their disposition on the road and prompt action saved them from complete tactical surprise.

Some of the excitement to be experienced in campaign,

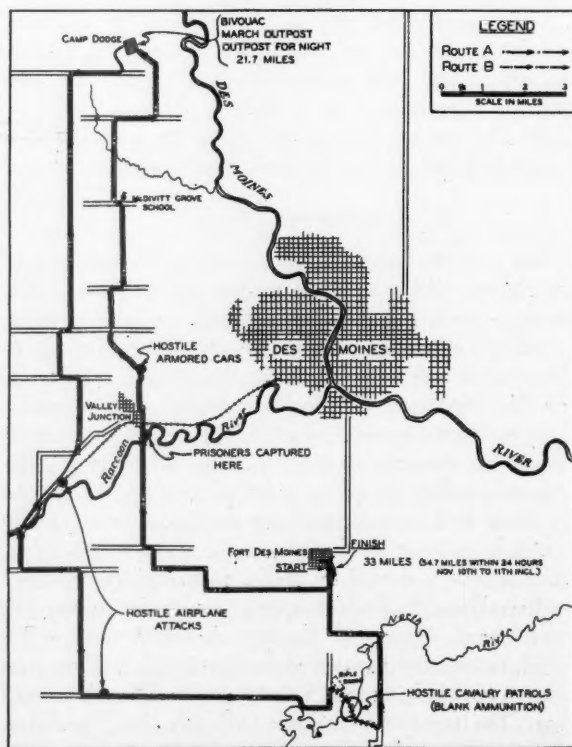


FIGURE 5—Route of leadership phase in 14th Cavalry competition.

SPECIAL INSTRUCTIONS FOR RECONNAISSANCE ISSUED TO THE FIRST PLATOON

Control No. 1.

To be issued at 12:01 PM, 10th November, at Troop Headquarters

Special Instructions No. 1
ReconnaissanceMaps: Iowa State Highway Map
U. S. Geological Survey 1/62,500
Indianola and Des Moines SheetsTITLE Hq. 14th Cav.
PLACE Fort Des Moines, Iowa.
DATE 10th Nov., 1936, 12:00 Noon.

Detachment or Patrol	Furnished by	Hour of Dep.	Axis, Zone Locality of Recon.	Obj. and Hr. to be reached by Det.	Missions (in order of Priority)	Reports to reach CP by	Remarks (sit, dur of missions, com., etc.)
No. 1	Troop E	12:30 PM	Route "A" Fort Des Moines	VALLEY JCT. 2:30 PM McDIVITT GROVE SCHOOL 3:30 PM CAMP DODGE 5:00 PM	<p>1. What is the strength, composition, location and direction of movement of hostile troops between FORT DES MOINES and BOONE?</p> <p>2. Prompt report will be made of reconnaissance of RACCOON RIVER CROSSINGS on your axis.</p> <p>3. Enemy detachments encountered the size of a tr. or larger will be reported.</p> <p>4. Identifications are desired of force in vicinity of AMES.</p> <p>5. Bivouac at CAMP DODGE.</p>	<p>Without Delay</p> <p>Without Delay</p> <p>Without Delay</p> <p>When Determined</p>	<p>1. RED situation, no change.</p> <p>2. 14th Cavalry remains today at Fort Des Moines.</p> <p>3. Probable duration of mission, 48 hours.</p> <p>4. Msgs. To Rgt. CP Ft. Des Moines. (Note: All msg's will be delivered to the umpire with your platoon.)</p> <p>5. See Operation Map for axis, objectives and lettered routes.</p>

By order of Colonel PEGRAM

X

Major,
S-3.

with the false alarms, surprises, etc., was shown after the armored car attack. Although no more use was made of the regiment's scout cars, the alarm was given several times afterwards. The imaginations of the members of the advance guard were working overtime.

Arriving at Camp Dodge (a war-time camp which is being used by the Iowa National Guard) at dusk, each platoon halted and made a thorough reconnaissance of the area before selecting a bivouac and then in the dark established camp quickly and quietly.

A march outpost was established, and within an hour the outpost for the night had replaced the march outpost. The horses were groomed, watered, and fed. Having marched twenty-two miles or more, with the attendant strain of the competition, the men needed no encouragement to eat. The sandwiches, well dried by this time, were devoured and relished; the reserve ration being saved for later use.

The umpires remembered the cold weather experienced at the same time last year and provided a hot meal for the platoons. An armistice was called to allow the men to eat, and it was a most pleasant surprise to both platoons. The troop providing the meal was more than repaid for its efforts.

At 2:00 AM the first platoon leader was given the following oral order; delivered by Sergeant, Scout Car Section, 14th Cavalry:

"Colonel Pegram directs that you return without delay to rejoin the regiment. Your route is indicated on this map." (Route B.)

"You will continue your reconnaissance and capture or destroy any enemy patrols encountered."

A similar order was given to the second platoon at 3:00 AM.

Taking only time to water and feed, both platoons saddled in the dark and were on the road in excellent time. The return march on a strange route, and in the dark (no moon), was even faster than the daylight movement of the previous day. No rate of march had been prescribed by higher headquarters, but each platoon averaged at least six miles an hour. In the opinion of the umpires it was the best night marching they had seen under the assumed conditions. There was no noise, no confusion, and no lights, except at the halts, when a close observer might have discovered a shaded light with two figures bent over a map. Investigation would have shown the platoon leader and the advance guard commander memorizing the changes in direction of the route for the next hour.

The measures taken to prevent aerial observation and the training of the men in simulating fire on hostile attack aviation were very effective in both platoons. At halts, if trees were not available along the road, all men and animals were off the road, in the ditches on each side.

When air attacks were made, every man moved as though he had just finished rehearsing his part.

A march of twenty-six miles brought each platoon to the rifle range. The platoon had to move over a flat terrain, covered with brush, which at 1,000 yards gave way to a

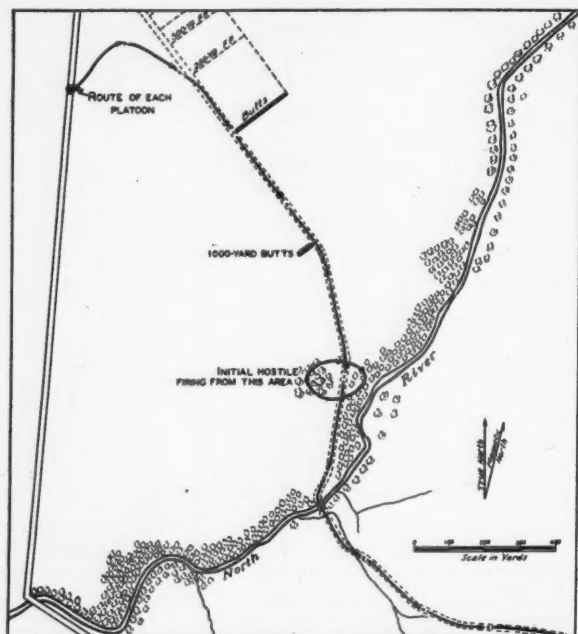


FIGURE 6—Combat with an enemy patrol.

sharp hill whose sides were thickly wooded. A sudden burst of rifle fire from the front caused the scouts, who were well in advance of their platoon, to take cover quickly behind the 1,000-yard butts, and the platoon leader moved up quickly and joined them. The rifle fire from the front continued. The preliminary reconnaissance failed to disclose the actual location of the enemy. From this point on the maneuver was without umpire control and complete liberty of action was invested in the platoon commander. The enemy, a patrol of ten men, firing blank ammunition was actually present and directed by an officer who had been instructed only as to his original location. Thereafter he was to maneuver the enemy patrol in accordance with the existing situation until forced to cross the river and then to take up a position south of the river to command the bridge and hold it until he was forced out.

Now to follow the action of each platoon. One platoon leader after making his reconnaissance from the butts, decided on a dismounted attack, enveloping the enemy right flank. Seeing the enemy withdraw, he mounted his platoon, and, avoiding the bridge, forded the river and worked back towards the bridge. Except for a few parting shots, nothing more was seen or heard from the enemy.

The other platoon leader, after making his reconnaissance, decided upon a combined attack, a mounted envelopment of the enemy right flank supported by a dismounted frontal attack. The mounted attack was to move

under cover of the woods and underbrush along the river. Upon the withdrawal of the enemy, the dismounted attack followed closely. Arriving at the bridge, the platoon leader worked one man across the bridge at a time, under cover of supporting fire from his side of the creek. The enemy was pushed back, and after the entire platoon crossed, the enemy fled before they could be captured. After the fight at the rifle range, the march to the post was uninterrupted.

The inspection for the completeness of the individual equipment resulted in no deductions for either platoon. The report of the veterinarian showed no sore backs, lameness, or any injuries as a result of the test.

The final scores are:

Platoon	Commander	Individual Phase	Leadership Phase	Total Score
Troop F	1st Lt. James B. Corbett	23.75	68.678	92.428
Troop E	1st Lt. James C. Blanning	23.25	67.712	90.962

Virtue may be its own reward and competition may be healthy and stimulating but a substantial prize in the offing certainly does not dampen the soldier's ardor nor decrease his interest and effort. If this thought occurred to the donor of the prize he is well assured that his aim, to encourage and increase the progress in efficiency of the small cavalry units, has succeeded to a marked degree. Successive leadership tests under the present conditions



WINNING PLATOON FROM TROOP F, 14TH CAVALRY.

BOTTOM ROW: Private, First-Class, Skelton; Private Horch; Private, First-Class, Hurt; Private Wiess; Privates, First-Class, Myers, Hatchel, and Bruess.

SECOND ROW: Privates, First-Class, O'Hara and Horsley; Privates Banks and Edleman; Private, First-Class, Miller; Private Maillie.

THIRD ROW: Privates Fisher and Thielen; Private, First-Class, Carrier; Private Stevens; Privates, First-Class, Maxfield, Hendersonshot, and Mahurin.

FOURTH ROW: Corporal Ellis; Private, First-Class, Mason; Corporals Hinman and Berger; Sergeant Hicks; Private, First-Class, Hansen.

BACK ROW: 1st Lieutenant Corbett; Sergeant Gannon.

have year after year demonstrated not only a comparative degree of excellence between the competing units but increasingly higher standards so that the umpires are finding it difficult to place any unit second in a competition which has no second raters competing.

Cayuse

BY CAPTAIN JAMES A. MCGUIRE*

HE was a cayuse, a little larger than a polo pony but a whale of a sight tougher. We named him *Dynamite*. His eye was the fuse, for when it lit on something of immediate interest, he exploded into action. Onery he seemed at first but a longer acquaintance tinged that down to almost affection. He earned his keep and here is how.

I have a feeling for dumb animals: a kinship, I suppose, for I once paid a shilling an hour to get blisters learning to ride under the hard eye of a riding master of the 21st Huzzars.

After the war to make the world safe for the Democrats, I, like most of the old soldiers, had a strong yen to go some place where there was eternal peace and quiet. A ranch, farm, plantation or such with the only noise coming from the rooster in the morning, and not too much of that.

I and another ex-member of the Princess Patricia's went to Santo Domingo, but after nosing around the interior for several weeks, had to abandon the idea of settling there, for titles to land holdings were more than obscure—the result of the destroying of deeds and records in their bi-weekly revolutions. Next western Canada had its lure, but I went alone, for my old battle-scarred comrade voted to return to dear old Blighty.

I arrived in Peace River, end of steel, in Northern Alberta, in May, 1920. The country was just thawing through its winter robe of snow and ice, and the air held still the tang of frost. The ground was beginning to blossom with wild roses and small, but very sweet, strawberries. I was hopeful, had a sum of money yet, but nothing in the way of experience in what I was about to tackle, farming, for city life and soldiering was my background.

I met Christensen on the train coming up from Edmonton, and as he had similar plans we decided to pool interests. He had been a sergeant in the Canadian Light Artillery, a Dane by birth, and was short, blue eyed and jovial.

Arriving, we breezed into the only hotel and the wind contested our closing the door. Smoke, partly from the stove, but mostly from tobacco, darkened the room used as a lobby. After we engaged accommodations, we sat on a bench to listen in on the conversation. Information about this new country was of great interest to us, naturally. The gossip might contain kernels of value. Most of the men (there were no ladies) wore mackinaws and moccasins, the latter because the below-zero weather froze leather into iron. The topics ran to moose, a winter meat supply; wolves, destroyers of the same; and the question as to whether huskies were part-wolf. The answer is: they are. A native bitch dog is used for the cross to give greater stature and strength to the strain. When the breed runs down, the wolf is used again. This is an argumentative subject in that country.

A kernel came along. The talk swung to the local stableman or horse dealer, a Mac-something. Another David Harum, if half the talk was true, with the odds on the townite. His most recent fall from grace was in selling a draft horse to a neighboring farmer, recently of the Royal Navy, which expired in the new owner's stable the next morning! A man on the other side of the room (who was subsequently identified as Dr. Bennett, a veterinarian, with service in Mesopotamia) voiced, on appeal, the opinion that probably the animal was old, had been doped for the sale and that the exertion of climbing a hill had written *fini* on his ticket. This Mac-something was the only dealer in town! A kernel there, but a trifle sour.

That night Chris and I decided we would have to chance it with this disciple of the code that there is no law of God or man north of 53.

The next morning we walked into Mac-something's stable and asked to see a saddle horse. The owner himself appeared and turned out to be a lean, tall, toughened individual with a smooth, pleasant flow of conversation to which his eyes were no party. A horse, still in his winter coat, was paraded for our attention—a cayuse, not large, likely looking and seemingly with plenty of pep. The hostler apparently was imbued with a healthy respect, the way he handled the rope halter. Mac-something said that the animal, being native bred, was acclimatized and would stand plenty of hard work. Chris noticed also that exhibition of spirit on the part of the horse. I prefer the



A horse, still in his winter coat.

other kind. Chris stepped forward, and with the aid of the hostler, succeeded in opening the animal's mouth. The artillery had quite evidently taught him something.

"Over ten years!" flatly stated my companion.

After a space, the trader admitted such might be the case.

Next the price. Mac-something gave ground when we pointed to a possible bad temper in addition to his age. Some more wrangling and we paid a price. I offered the moniker *Dynamite* and Chris agreed. T.N.T. or ammonal would have done just as well.

*Author of "The Tank Ju-Ju."

We had pitted our wits against the slicker. Would we get our money's worth? Kind fortune smiled and nodded her head. The luck that goes to boobs, drunks, little children, and those mentally deficient. Chris had some knowledge of horses, having been raised on a farm in Denmark and having splashed around with the lights in soggy France and Belgium. My record was not so encouraging—no equestrian background at all, until old la guerre came along. At Tidworth, a cavalry center in England, I had taken riding lessons from a Huzzar regiment. I was a lieutenant of tanks then down for a course in infantry training. Soon to rate a mount, I thought it a good idea to take advantage of the Huzzar offer of instruction at a bob the hour. I will never forget the first session. The instructor had told us in the class that no hurdles were to be used the first day. He double-crossed us. The second time around the tan-bark, monster hurdles sprouted in front of us. We all halted, knowing the worst. The longer I looked at those barriers, the larger they grew. Before my nerve went entirely I decided to chance them. I spurred forward, felt my horse rise to clear and heard a Tommy on the sidelines shout:

"Lean forward, sir!"

I leaned and landed on an even keel. A proud moment, although my feet could have done with another pair of woolen socks. The sore period eventually ended and I had some idea of a horse, that is, how to sit one.

So Chris and I took our first bit of stock away. From then on we bought things, all sorts of gear for our venture in tillage, the greatest gamble in the world.

A few months later we each had 160 acres on the old Klondike, now the Grouard Trail, about nine miles south-east of Peace River. A log dwelling house and a barn apiece, on as level a terrain as can be found anywhere. *Dynamite* served as transportation except when we had to borrow a team for trips. He tossed us both several times before he conceded to put up with us.

Toward the last days of summer I was riding him along the Trail, taking it easy. Incidentally we had discarded a neat English pigskin saddle for a stock one.

The road was wide with a fringe of brush and poplars bordering it on either side. *Dynamite* gaye a little snort and I quickly spotted the reason. A large grey wolf was loping along against the side of the Trail just ahead of us, as nonchalant as you please. That may seem strange but isn't. The wily canine saw I did not have a gun and he did not fear the horse. If I had been on foot, I doubt whether I would have seen him. The old cayuse started edging over to the wolf as we ambled along. I gave him his head. Closer and closer he drew, and I wondered why Mr. Wolf allowed us to get so near. Suddenly *Dynamite* leaped in the air and came down with feet bunched, almost throwing me off. But the grey terror of the north flashed aside from the danger with just inches to spare and continued to trot just ahead of us, with a slightly larger interval. The cayuse knew his tricks—this one similar to that of the deer using his sharp hoofs to make hash of a

snake. *Dynamite* lost interest and as we approached town the wolf slipped off into the underbrush.

We allowed our mount to forage for himself mostly, as lush grass grew in the near muskegs. At first we tried hobbling him but what a chance! The one experience was enough. We tied him up one night and Chris remarked that would hold him for awhile. The next morning was spent in tracking him down. He had hopped about five miles away. Then we anchored him to one of those deep-rooted willows—resulting in another long walk. He had tugged and pulled until the willow came up, roots and all! Eventually we took advantage of his liking for salt,



Suddenly Dynamite leaped in the air.

and a rattling on a tin always brought him in. Up in that country the silence is so profound that a slight noise carries miles.

The high light in excitement with old *Dynamite* came early in October. We had seen moose at various times, mostly females. The mating season was on and the animals were not so wary; everybody was on the *qui vive* for a possible winter's meat. All around us, with the exception of a few clearings, was dense with brush, wind-falls and standing poplars, making it hard to spot the moose. They generally did not move around much in the daylight, waiting for dusk to do their courting. Their eyesight is poor but their noses are keen, and often, if they think something is following them, will back-track and watch. The general opinion was that the Cree Indians were the only ones to bag a moose.

Closing up the house one night—the light was beginning to fade rapidly—I heard and saw *Dynamite* about

400 yards away on the edge of a little clearing, snorting angrily—caused by an unwelcome scent, probably from wolves or moose.

I tried the old magic of rattling the tin can to get him over for some salt, but he paid not the slightest notice. He kept backing away from some young poplars which led into grass where he fed at times. Something had driven him out and he was sore. Getting tired of banging on the tin I had decided to go into the house, when I gave a last look before I closed the door.

What a start! Where old *Dynamite* had stood was another figure, much larger with its head thrown back and with shovel scoop antlers! I strained my eyes to make sure of what I saw. It was a bull moose! The cayuse was gone. Scarcely daring to breathe, I went to a corner where my 25-35 Winchester stood and grabbed a couple of cartridges from the top of a trunk. I decided to chance a shot from the doorway for I was afraid the moose would spot me in the open if I went outside the door. I took in a deep breath, gently exhaled and as gently squeezed the trigger. I aimed for just back of the shoulder. The shot awoke the echoes. Quickly I jammed down the lever and fired again. The moose was still there, apparently unaffected. I got some more shells and rammed them in the chamber and magazine. I rushed out and ran to a broken windfall. I peeked around it. The bull was walking slowly around in the same spot, perhaps a challenge to the horse to come back and fight. It might be imagination but I thought he stumbled once or twice. I quickly gave him two more rounds. Down he went!

Daylight was rapidly fading. I dashed back to the house for a light.

Good old Chris was at the door with a lantern.

"What's up?" he whispered.

Grabbing up more ammunition, I told him.

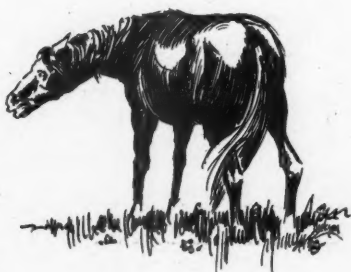
"Look out for him! He's wounded and in the open!"

But we ran forward together! Getting to the place where I had last seen the moose, my heart sank. He was not in sight. Suddenly a scraping and rustle and a dark form rose near us. It was the bull, but trying to get away. He only went a few steps and fell. Chris, with the lantern held high, went with me shoulder to shoulder. We came upon the moose sitting down. As my comrade held the light steady, I delivered the *coup de grace*.

Did we work like wild men cutting him up into four quarters? Wolves might get the scent any minute! After about an hour, we felt safe with the meat and skin safely housed. In the flurry we forgot to save the liver, heart, and tongue and buried it with the rest. The bull had five points, and, this being early in the season, was in prime condition. What a prize! Chris and I were set for the winter: moose steaks are good.

The cayuse had brought home the bacon, right into our own front yard! A brick of salt for him and affectionate pats the next morning when he showed up. He understood the former but failed to register for the latter.

Next spring Chris and I left the Peace River country for different reasons. Before we left, we voted to give old *Dynamite* his freedom. He would make out in the winter, foraging grass in the muskegs, and there were always plenty of hay stacks left in the open by the farmers for winter feed for the cattle. Yes, the old boy had earned his keep.



Military Career of General Hawkins An Inspiration to all Cavalrymen

THE cavalry service lost from its active rolls one of its most inspiring leaders when Brigadier General Hamilton S. Hawkins retired for age last fall. An ardent and accomplished cavalryman, he has exerted a far-reaching influence on our development of tactics, weapons and every phase of cavalry training. He truly exemplifies the traditions of cavalry.

It was a great day for the cavalry arm when General Hawkins was assigned to the command of the 1st Cavalry Division in 1934. There he devoted himself to the training of the division, practicing and testing new tactical doctrines which might prove of value to cavalry. After supervising the training of the various division units for more than two years, he terminated his distinguished career by assembling the division in 1936 and conducting its maneuver as a single cohesive unit, demonstrating the effectiveness and the great mobility of this formidable

force, and affording the first opportunity to test our modern cavalry equipment in the field operations of a division.

General Hawkins was born September 25, 1872, son of the late General H. S. Hawkins, U. S. Army. He graduated from the United States Military Academy June 12, 1894, and was assigned to the 4th Cavalry.

His first station was Fort Walla Walla, Washington, where he served for three years. In May and June, 1897, he marched with two troops of the 4th Cavalry some 800 miles to Fort Yellowstone, Wyoming, where he served until January, 1899. He was married in November, 1897. Then he went to West Point as instructor in mathematics and served there until June, 1899, when he was relieved to join his regiment in the Philippine Islands.

During the Philippine insurrection, he commanded Troop E, 4th Cavalry, and participated in some twenty



BRIGADIER GENERAL HAMILTON S. HAWKINS, RETIRED.

different engagements being twice cited for gallantry in action.

Promoted to Captain in March, 1901, he left the Philippines in July, 1901, to join the newly formed 13th Cavalry at Fort Meade, South Dakota.

In 1903, he was detailed in the Subsistence Department and served at Denver, Colorado, and again at Manila, Philippine Islands, until April, 1907, when he rejoined the 4th Cavalry serving in Mindanao, Philippine Islands. Thence, with the 4th Cavalry, he went to Fort Meade, South Dakota, and remained there until he was sent to the School of the Line at Fort Leavenworth, Kansas, in 1910. He graduated from that school in 1911, and from the Staff School in 1912.

In 1912 the Chief of Staff of the Army, General Leonard Wood, selected him to serve in a French cavalry regiment. This lasted for about one year, after which he served for about one month with a German regiment. In his report, he pointed out certain weaknesses in the French and German cavalry systems which were substantiated by experience during the Great War.

Returning to the United States in October, 1913, he was assigned to the 3d Cavalry and commanded Troop B of that regiment at Fort Sam Houston and at Fort Brown, Texas, until the winter of 1915 and 1916, when, after a refresher course in equitation at the Mounted Service School at Fort Riley, Kansas, he was detailed to purchase horses and mules for the Punitive Expedition in Mexico.

During the Mexican border trouble, he served in the field and in pursuit of raiding bandits, receiving the commendations of his superiors and the respect of his subordinates. At this time his troop was awarded first place in the regiment at the annual competition inspection by the brigade commander, General James Parker.

During this period, Captain Hawkins established a reputation as an excellent horseman, an expert in the use of arms, a leader of men, a student of tactics, and an enthusiastic cavalry officer. He had been tested in garrison, in campaign and in actual combat against the enemy.

In June, 1916, he was sent to rejoin the 4th Cavalry at Schofield Barracks, Hawaii. He then commanded Troop H, 4th Cavalry, which was the troop he had first joined as a 2d lieutenant. Thus his first troop became his last, as he was promoted to the grade of major a few months afterwards.

Then came the Great War. He was at that time a major of cavalry commanding a squadron in Hawaii, and in that capacity received the high commendation of his regimental commander, General M. R. Brett. When the National Army was formed, Major Hawkins was appointed colonel of infantry and sent to Camp Funston, Kansas, where General Leonard Wood put him in charge of the training schools of the 89th Division. He continued in this work until January, 1918, when he was ordered to Fort Sam Houston, Texas, as an instructor in the Brigade and Field Officers' School for National Guard officers. General Thomas B. Dugan, commandant of the school,

held a very severe attitude, and this duty was difficult and trying, yet most of the National Guard officers came to Colonel Hawkins after the course was finished and thanked him in the warmest terms for what he had done for them.

He was then detailed on the General Staff—much to his disappointment, because he wanted a regiment—and was ordered to Washington. In June of 1918 he went to France and upon arrival went to the General Staff School at Langres. At the end of August, 1918, he was attached to the 2d Division, where he served as an observer and did duty in assisting G-3 during the Saint Mihiel offensive. During the entire night of the advance—September 12th—he was at the front helping to clear the trails of returning wounded and of empty machine gun ammunition carts in order to get up to the front lines much needed ammunition. He went up to the front line held by General Ely's brigade at Thiécourt and, upon returning, gave valuable information to the division commander which helped to dispel rumors to the effect that the Germans were advancing and General Ely falling back.

After this offensive, Colonel Hawkins was ordered to the 35th Division as chief of staff. He joined while it was on the march, just eight days prior to its being launched into battle—the Meuse-Argonne offensive. Colonel Hawkins received only high praise for his work with this division the outstanding facts of his service being as follows:

(1) The plan of battle proposed by him for the division was accepted, and the first day, September 26th, it brilliantly carried the famous Vauquois Hill, which had been impregnable to the French for a long time; also the equally difficult Bois de Rossignol, fifteen hundred meters in rear of Vauquois. The advance continued beyond Cheppy, and the maps and report of General Pershing show that the division captured more ground than any other division in the Army that day. After five days' fighting, the division entered Exermont and was farther forward than any other American unit.

(2) Late in the afternoon of the second day of the fighting, after our troops had met with serious losses and had been able to advance only a short distance over an open and exposed plain, a fresh, concerted attack was organized, about 5:30 PM, and carried forward with great success, but darkness intervened in the pursuit and our inexperienced troops and troop leaders got mixed and confused. The third day, this confusion increased, and, due to this disorganization, the division was unable to continue the advance. Under orders from corps headquarters, Colonel Hawkins was sent forward to straighten out these difficulties, and another officer, Colonel Jens Bugge (since deceased), was detailed as acting chief of staff. Colonel Hawkins went forward mounted, with a squad and Captain Sands of the 2d Cavalry. He performed his mission with gallantry and skill. The horse of one of his mounted orderlies was killed. Both orderlies disappeared. They were probably killed.

(3) Early in the morning of the third day the division

was ordered to attack again. Colonel Hawkins once more went forward and found that the attack had been started but that everything was at a standstill. He came upon one regiment lying down in an exposed position, moved it forward and, under his direction, it reached Exermont. Later in the day the division commander placed Colonel Hawkins in command of one of the brigades to replace an officer who was ill and worn out. With the assistance of the gallant Brigade Adjutant, Major Dwight F. Davis, subsequently Secretary of War, Colonel Hawkins proceeded to reorganize units, appoint new leaders and bring order out of confusion. He established the brigade on Baulny Ridge and the next day repulsed counter attacks of such severe character that false reports obtained circulation in rear to the effect that the division was in retreat. The arrival of Colonel Hawkins inspired the disorganized units with new confidence, and the members of the brigade staff were open in their praise of the work of organization accomplished by him. Owing to these efforts, the brigade was able to withdraw quietly and in excellent order when it was replaced, on October 1st, by the 1st Division. After marching the brigade back to reëquip and receive replacements, he returned it to its proper commander and resumed his duties as Chief of Staff of the division.

(4) On the first afternoon after the fighting was over for the day, the division commander, General Traub, went to the front to make a personal reconnaissance. During this time General Liggett, the corps commander, visited division headquarters and asked for the location of the front lines. Due to inexperienced personnel, this information was not immediately available. While waiting for information, it was learned that the division artillery was having difficulty in getting guns to the front over certain inadequate crossings prepared by the engineers. With General Liggett's permission, Colonel Hawkins went forward and ascertained the facts which were subsequently of great value.

As a result of Colonel Hawkins' work during the war, he was highly commended by both of his division commanders, Generals Dugan and Traub, and was recommended by both to be promoted to the grade of brigadier general and to receive the DSM. He received two citations, one for gallantry in action and the other for conspicuously efficient service as Chief of Staff, 35th Division. Moreover, his name was placed on the Initial General Staff Eligible List, composed only of those officers who, by actual experience in command of troops or on staff duty, demonstrated exceptional ability and qualifications during the war.

After the war Colonel Hawkins for a short time com-

manded the 1st Cavalry at Douglas, Arizona, and then went to Fort Riley, Kansas, as assistant commandant of the Cavalry School. The post commander is the commandant of the school, but normally the de facto head of the school proper is the assistant commandant. He served in this capacity four years. He revised or rewrote practically all the cavalry textbooks—on tactics, drill regulations, and methods of instruction—the old ones having become obsolete as a result of the war. He devised new methods of pistol and sabre instruction, and caused the instruction of horsemanship to lend itself practically to modern cavalry needs. As a member of the Cavalry Board, he devised several improvements in equipment, including the new modified McClellan saddle, etc.

Subsequently, as Colonel of the 3d Cavalry, he commanded the post of Fort Myer, near Washington, D. C., for more than three years, and during this time, under constant observation of officers, civilians and foreign officials of high rank, he received many compliments expressed in the highest terms upon the training and appearance of his command.

When the term of office of the Chief of Cavalry expired in 1924, Colonel Hawkins was strongly recommended for that office by many prominent officers.

In 1926, Colonel Hawkins was sent to the Philippine Islands as chief of staff of the Philippine Division. He served there until his relief in 1928. Both division commanders under whom he served, recommended him highly for promotion.

He was promoted to the rank of Brigadier General on September 4, 1928, and served as Commander of the 14th Infantry Brigade with headquarters at Fort Omaha, Nebraska, until September, 1929, when he was placed in command of the 1st Cavalry Brigade at Fort Clark, Texas. In that capacity he commanded the brigade in several very interesting maneuvers. In the summer of 1933, he temporarily commanded the 16th Infantry Brigade and the Wyoming CCC District.

On April 1st, 1934, General Hawkins was assigned by the War Department as commanding general of the 1st Cavalry Division with headquarters at Fort Bliss, Texas. In that capacity and as post commander he remained stationed at Fort Bliss until July, 1936, when he left on leave of absence previous to his retirement for age on October 1st of that year.

During his seven years' service in the 1st Cavalry Division, three different commanding generals of the Eighth Corps Area recommended him enthusiastically for promotion to the grade of major general; but his approaching retirement for age prevented his receiving that honor.

THE CAVALRY SCHOOL DIGEST OF INFORMATION



Cavalry in Defense of a Locality

(A student research article.)

PREPARED BY 1ST LIEUTENANT CORNELIUS A. LICHIRIE, Cavalry

THE grand strategy of the British Empire has always considered the Suez Canal of vital importance. Therefore, when Turkey entered the war, the defense of Egypt and the Suez Canal became an urgent matter. The frontier line of Sinai was abandoned and the Suez Canal used as the first line of defense, both for itself and Egypt. It was to be a passive defense. Seventy thousand troops in all were employed along the 100 miles of the canal.

In February, 1915, the Turks crossed the desert, attacked the canal, and were repulsed. The three objectives of the attack were: to compel the British to retain large forces in Egypt, to render the canal impassable, and to bring about an uprising in Egypt. The attack demonstrated that the enemy could cross the Sinai Desert in force, and showed that the defense of the canal and that of Egypt were not the same. The canal is an admirable obstacle for the defense of Egypt, but the defense of the canal itself would have to be pushed out into the Sinai Desert. Above all, this attack showed the weakness of the policy of passive defense.

During 1915, the Turks were busily engaged in the defense of the Dardanelles, and it was not until this campaign was abandoned that talk of a new attack in force on Egypt was rumored. This resulted in a massing of 400,000 troops, purely as a result of the successful first threat in 1915 with 15,000 men and artillery. During December, 1915, and January, 1916, concentration of Turkish troops for the contemplated invasion proceeded.

However, the defeat of the Turkish Army at Erzerum by the Russians compelled the Turks to reduce their garrisons in Syria and on the Egyptian front. As a result only 60,000 troops were available for the contemplated attack on Egypt.

In January, 1916, General A. Murray began taking over control of the British forces in Egypt, and finally became commander-in-chief of the Egyptian Expeditionary Force. It is largely due to him that the policy of an active defense, backed by mobile forces, was taken over and put into execution. In a memorandum to the Chief of the Imperial General Staff, dated February 15, 1916, General Murray stated that "the first step toward securing the true base for the defense of Egypt is an advance to a suitable position east of Katia, and the construction of a railway to that place." This was decided on the basis that the northern route was the most likely line of advance for the Turks across the Sinai Desert, and the fact that the Katia-Romani area offered an assembly place for the enemy within two marches of the Suez Canal capable of supporting with water a large number of troops.

In accordance with higher plans, on April 7, 1916, Brigadier General E. A. Wiggin took command of the Katia District and with the 5th Mounted Brigade of British Yeomanry was ordered to Romani with instructions to occupy and hold the Romani-Katia oasis area, and deny this area to the enemy.

In the meantime, since the beginning of the year

(1916), about 150,000 troops were being released from Egypt and embarked for duty at other fronts. Because of this, "German headquarters ordered an attack of a small mixed detachment to rekindle British apprehension for the canal." The result was that a flying column surprised the advanced posts of the 5th Brigade at Oghratina and Katia on April 23, 1916, wiped them out, and sent the Brigade back on Kantara. What were the details that led to this surprise and disaster for the British?

When General Wiggin moved his force to Romani he had been ordered to "dispose his brigade in the Katia District in such a manner as to protect all railway, topographical and water survey parties, with special attention to the exploitation of the water supply—to observe the route eastward—but not to take any serious offensive measures without further orders." He had also been told by Major General H. A. Lawrence "that since it would take two days to reinforce him with infantry, he was, in the event of a heavy attack, to manœuvre back" toward Dueidar or Romani.

General Wiggin established his headquarters at Romani and had advanced posts at Oghratina, Katia and Hamisah. On the 21st of April, 1916, one squadron of Worcestershire Yeomanry occupied Oghratina in order to protect a detail of 50 dismounted men sent there to prepare wells.

On the 22d of April another squadron of the same regiment reinforced Oghratina and its place at Katia was taken by a squadron of Gloucestershire Yeomanry. The garrison of Warwickshire Yeomanry (less one squadron) was at Hamisah.

This disposition of troops was not unknown either to General Lawrence or to the Turks. General Lawrence had visited Romani on the 19th and Oghratina on the 20th of April. German airmen flew over this area daily and bombed Katia on April 20th, and Katia and Romani on April 21st. In addition, Bedouins, among whom were probably Turkish agents and spies, had free run of the British lines.

On April 22d the Royal Flying Corps reported to No. 3 section that enemy forces were at Bir el Bayud, fifteen miles east-southeast of Katia, and Bir el Mageibra, ten miles southeast of Katia. Through natives General Wiggin learned there was a force of about 200 of the enemy at Mageibra, and he asked General Lawrence for permission

to attack. The permission was granted. General Wiggin moved out to Hamisah, where he picked up the garrison. That night, with two squadrons of Warwickshire and one squadron of Worcestershire Yeomanry, Bir el Mageibra was raided. Only a few of the enemy were found, the camp there was destroyed, and six Turkish prisoners were taken.

Early in the morning of the 23d of April the 5th Brigade was disposed as follows: three squadrons with brigade headquarters under General Wiggin at Mageibra, two squadrons of Worcestershires at Oghratina under Major W. Thomas, one squadron of Gloucestershires at Katia under Captain Lloyd-Baker, and the remainder of the brigade in camp at Romani under Colonel Yorke.

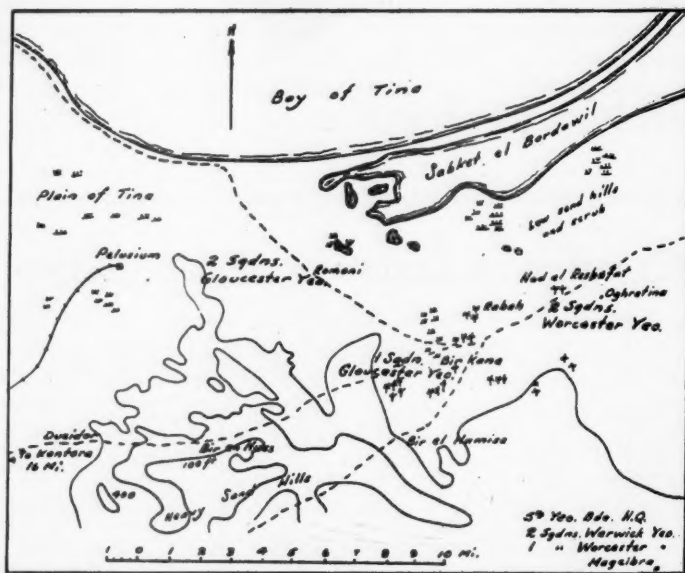
At this time, the enemy was within striking distance, a force stronger than the entire brigade, and yet the

English knew nothing of their presence until the Turks opened fire at Oghratina. This Turkish force "consisted of three battalions, six squadrons, a battery and a machine gun detachment." In all, it amounted to a force of about 2,500 men.

The two squadrons at Oghratina stood to arms at 4:00 AM, sent out patrols, and then, in spite of a thick fog, withdrew the patrols. In this fog the Turks crept up, and at 5:30 AM launched an attack supported by light guns and machine

guns at very short range. The British were completely surprised. At 6:00 AM Oghratina reported by telephone to Katia that it had repulsed the attack. At 7:00 AM the report came through that Oghratina was again heavily attacked from all sides. The wire was then cut, but sounds of firing continued until 7:30 AM, when Oghratina fell. The British loss here in dead, wounded, and prisoners was 15 officers and 187 men.

At Katia, the squadron of Gloucestershire under Captain Lloyd-Baker to the number of five officers and ninety men also stood to arms at 4:00 AM. A patrol was sent out which returned at five o'clock with a negative report because of the fog. A few minutes later an enemy patrol contacted the outposts and after a few shots retired. At 5:30 AM firing was heard at Oghratina, and from then on the camp was on the alert, expecting an attack any moment in the heavy fog. Shortly after 7:30 AM another patrol approached Katia, but retired upon being challenged. About 8:00 AM the fog lifted, and at nine o'clock



Disposition of 5th Yeomanry Brigade at about 5:30 A.M. on 23 April, 1916.

a patrol under a corporal returned with the information that two lines of enemy of about 300 men each followed by some troops on camels were about a mile and a half from Katia.

The camp at Katia had good trenches for some 50 or 60 men. It was in a palm grove surrounded by sand dunes. The horses were saddled and picketed close to the camp. The question now arises, why did not Captain Lloyd-Baker retire on Romani in face of this vastly superior enemy force? General Wiggin had been ordered to avoid a serious engagement. The possibility is that the camp commander had not been so instructed, or did not act in accordance with his orders. Whatever the reason, Captain Lloyd-Baker elected to stay where he was, depending on his trenches and fire power to hold off the enemy, probably confident that reinforcements would be sent to him.

At about 9:00 AM the Turks commenced to attack. A battery opened up and in a short time registered. Round after round was poured in and within a few minutes most of the horses were killed. At the same time the Turks began to push their attack. A German airplane then proceeded to direct the artillery fire upon the British lines.

About 11:00 AM the other two squadrons of Gloucestershires began to arrive from Romani to engage with the enemy north of Katia. At the same time, an advanced squadron of Worcestershires under Lieutenant Colonel Coventry, detached from General Wiggin's force, advanced on foot and managed to reach Katia. Their horses had been left about three-quarters of a mile away, toward the west.

In the meantime the Turks also were reinforced. Small forces continued to work forward under cover to about 300 yards from the British position, and finally surrounded it. Shortly before three o'clock the final assault was made and Katia fell. Only a few men managed to escape; the remainder were either killed or taken prisoner.

Colonel Yorke with his two squadrons from Romani had a sharp fight with the enemy north of Katia, but was driven off, and, when Katia fell, retired on Romani. General Wiggin, with his headquarters and two squadrons of Warwickshire Yeomanry, followed Lieutenant Coventry from Hamisah, but was unable to bring about any vital results.

When Katia was taken, General Wiggin decided to retire on Dueidar by way of Hamisah. He ordered Colonel Yorke to join him, and, after abandoning much of the brigade's equipment, reached Bir Elnuss that night, seven miles west of Hamisah. The Turks did not follow, but destroyed the two camps and with their prisoners withdrew east.

To complete this story of the Turkish raid, at 5:30 AM, when Oghratina was attacked, another Turkish column, 1,000 strong with one gun, surprised the small British Infantry post at Dueidar. This post was held by 100 men of the 5th Battalion Royal Scots Fusiliers under Captain Roberts. There was a small redoubt here protected by wire at a distance of 200 yards. The Turks surprised the post, but their first rush was repelled when a fox terrier

gave the alarm. Two determined attacks were repelled at 6:30 AM and at 8:30 AM April 23d. At 9:30 AM reinforcements of two companies Royal Scots Fusiliers arrived from Hill 70, seven miles to the west. At 12:30 PM April 23d, a counterattack drove back the Turks and they retired, leaving behind 70 dead and 30 wounded.

ANALYSIS AND CRITICISM

1. The original dispositions of the brigade were such as to subject it easily to defeat in detail.
2. The instructions to avoid a serious engagement with the enemy were not transmitted to subordinates or else were not obeyed.
3. Security measures were entirely inadequate, as the Turks were able to surprise completely the camps at Oghratina and Dueidar.
4. Under the circumstances that enemy troops were known to be in the vicinity, day and night patrolling for considerable distances should have been in force.
5. No use was made of the mobility of cavalry to escape when the size of the attacking force showed that success would be doubtful.
6. The headlong retreat of the brigade after the fall of Katia showed lack of training and a lack of concept on the part of the brigade commander as to the value of a cavalry force in delaying action. Romani was left to the mercy of the Turks, and it was only good fortune that they did not proceed there.
7. The British at Oghratina and Katia seemed imbued with the idea that ground and position are sacred and are not to be abandoned until the last drop has been shed in their defense. There are times when this is true, but it is questionable whether this was necessary at these two camps.

CONCLUSIONS

1. Cavalry must be able to fight well both mounted and dismounted, so that it can carry out the various missions assigned it.
2. The mobility of cavalry is such a great asset that it must always be considered and conserved, in order that it can be used when it is needed.
3. The fire power of cavalry is vastly strengthened by the use of automatic weapons, and the inclusion of artillery in larger units helps cavalry against enemy forces that are so equipped.
4. The policy of requiring flexible minds in cavalry leaders is essential so that each situation can be fairly judged.
5. While the spirit of offensive combat should be kept alive and encouraged, due consideration should be given, in teaching, to the details of organization of ground and position.
6. Scout cars are a great help to cavalry for reconnaissance purposes and extend the area covered by local patrolling.
7. The outposting of camps both day and night will prevent disastrous surprise.

Technique of Fire of the Light Machine Gun

PREPARED BY 1ST LIEUTENANT FRANK D. MERRILL, 9th Cavalry

THE proper tactical and technical employment of any weapon is the primary requisite for its combat efficiency. Assuming proper tactical employment, maximum combat efficiency is obtained by close attention to technical employment. Technical employment, for varying conditions of gun positions and types of targets, makes up what is broadly termed technique of fire.

If the range to a target and the correct windage are accurately known it is a comparatively simple process to hit the target. In practice these two elements are rarely known. If time is consumed in trying to compute this data exactly, the fire power of the gun may be largely wasted. It may be better to estimate the range and windage and open fire. When the strike of the bullets is visible, as in dry or sandy soil, or when tracer ammunition is available, fire can be adjusted by the method known as "automatic sight correction." This method is used for ranging in the guns in defensive situations and should not be used against actual targets.

It is accomplished as follows: When the first shot, or string of shots, is fired the gunner watches the target, without looking through the sights. When the bullet or bullets are seen to strike the ground, the gunner, without disturbing the gun itself, runs his sight up or down and moves his windage scale to the right or left so that his line of sight is on the place where the bullet struck. He then, by manipulating the elevating and traversing mechanism, relays his gun on the target with the new sight setting and fires another shot or string of shots which should be on or near the target. This process is repeated if necessary. Thorough training is required for its successful employment.

Against actual targets an even faster method, known as "rolling the strike into the target" is employed. Using this method, when the first shot or string of shots is fired the gunner watches the target, without looking through the sights. When the strike is visible the gunner roughly estimates the distance in mils from point of strike to the target, both in range and deflection. He applies this correction immediately by moving the elevating handwheel the proper number of mil clicks so as to correct for range, and sliding the traversing block the proper number of mils to correct for deflection. Another shot or string of shots is fired and the process repeated if necessary. This can be done very rapidly, the gunner manipulating the mechanism without lowering his rate of fire. When the strike is on the target the sight is moved so that the line of sight is on the target.

Either of these methods, correctly employed by proficient gunners, will permit accurate fire to be put down on any target within the usable range of the gun (1,200 yards) with the expenditure of only about three to seven shots. Having gotten one shot close to a small target some of the succeeding shots of a string, fired without further changes in either sight setting or laying, will be

hits due to the normal variation in the trajectories of different shots. Continuous adjustment of sights is to be discouraged. Changes in elevation and deflection should be accomplished without lessening the rate of fire.

It is sometimes claimed that adjustment of fire sacrifices the element of surprise. With the light machine gun this is not true, because single shots do not disclose to the enemy the nature of the weapon. Where surprise is desired from the first shot, adjustment may be made by firing on another target at the same range and then switching to the real target when the adjustment is complete. Where the target is so located that strike cannot be observed, such as in trees or buildings, and tracer ammunition is not available, adjustment should be made on the ground in front of the tree or building, and the point of aim then shifted to the real target.

In executing any class of fire the light machine gun normally uses single shot fire. Automatic fire is reserved for real emergencies, where a maximum of fire is essential, such as in the assault or the final stage of a defense. Automatic fire causes the gun to overheat rapidly resulting in inaccurate firing first, and followed by eventual failure to function. Rapid single shots approximate the fire effect of automatic fire and have the advantage of being more accurately delivered. Full automatic fire results in stoppage after 800 rounds, whereas single shot fire at the medium rate of about 75 per minute can be kept up until all the ammunition carried by the squad is expended.

The present tentative marksmanship course for the light machine gun allows the gunner his choice of single shot or automatic fire. Those units which used single shots got far better results than those which used automatic fire, the extreme cases being one unit which qualified all of its men using single shots and another unit which qualified no men using automatic fire.

It may be difficult to teach men to use rapid single shot fire and at the same time to adjust this fire on the target without either slowing down the delivery of single shots or slipping into automatic fire, but it is the ability to do this which distinguishes a good gunner from a poor one. Without this combination, the gun becomes either a slow fire weapon little better than a rifle on a tripod, or a machine gun putting down a large burst of inaccurate fire, neither of which is desired.

Target designation for the light machine gun is basically the same as for any other weapon. A good method of designating a target is by tracer ammunition. In some circumstances, where good strike is possible, ball ammunition will be as satisfactory as tracer. Both of these methods cannot be used where surprise is desirable. Difficult targets can be pointed out to individual gunners by actually laying the gun on the target. Oral designation may always be used, but many targets will require such an involved oral description as to confuse the gun-

ners. *In any case, the simplest method that will put the gunners on the target is the best.*

Fire distribution is a very important consideration for the light machine gun. Fire is most effective when delivered uniformly over the target engaged. No rule can be given as to the width of a target for a single gun. It is preferable to have a single gun cover a front of not over 50 mils in width, but this condition cannot always be obtained in combat.

A single gun attached to a rifle squad covers the whole squad target no matter what its width. A pair of guns (light machine gun squad) attached to a rifle platoon ordinarily covers the whole platoon target, although in this case, if one gun is on each flank of the platoon, the right gun should start on the left half of the target and the left gun on the right half of the target, so as to obtain the advantages of cross fire. When the whole machine gun platoon is used as a fire unit, the right squad usually covers the left half of the target, the left squad covers the right half of the target and the center squad covers the whole target. In some situations such as very wide targets it may be necessary or desirable to have each squad cover its appropriate part of the target.

A single gun engages a line target by delivering a string of aimed single shots at one point on the target, then a second string of shots at a second point and so on, shifting the point of aim between strings progressively until the entire target is covered. Each point of aim is engaged as a point target (individual enemy) not as an area. This is a major difference between the light machine gun and the heavy machine gun, the latter being a weapon for area fire primarily.

Targets in depth are covered by firing strings of single aimed shots and searching progressively between strings until the entire target is covered. Where more than one gun is firing at a stationary target in depth, some guns should start at the head of the target and search up, while the remaining ones start at the rear and search down. For targets moving towards the gun position all guns should lay on the head of the target and search up. If the target is moving away from the gun position all guns should lay on the head of the target and search down.

In an advance of rifle units, guns usually move forward by echelon, so that some guns are always in action while the others are moving forward.

Fire orders for the light machine gun are simple and direct. All orders should be repeated by the gunners. The fire order consists of three elements which are invariably given in the following sequence:

1. Target designation element.
2. Fire distribution element.
3. Fire control element.

In cases where there is no need for one or more of these elements they are omitted. Examples of suitable fire orders follow:

Example 1. A fire order by a rifle squad leader to have his attached light machine gun support a forward in-

filtration of the riflemen of the squad:

Fire Faster. (Arm and hand signal may be used.)

Example 2. A fire order for a single light machine gun to switch its fire:

Range 1,000.
Enemy patrol (pointing).
Commence firing.

Example 3. A fire order for a light machine gun platoon to support an attack:

Range 900.
Enemy position to your front.
1st Squad cover left half of target.
3d Squad cover right half of target.
2d Squad cover entire target.
Medium rate.
Commence firing.

In defensive situations the establishment of final protective lines is a function of heavy machine guns. Due to the small number of these guns in a cavalry command they cannot always defend all parts of the position with these lines of fire. In such cases, the light machine gun can be employed to augment the heavy guns. Their general use in defense, however, is to fill in the gaps and dead spaces which inevitably occur in the final protective lines of the heavy guns. Sectors of fire are assigned to light machine guns in defense. They engage any enemy appearing within their sector with aimed single shot fire and endeavor to inflict as many casualties as possible early in the attack. Consideration must be given to prevent premature giving away of gun positions and to conserving ammunition in the early stages of an attack. As the attack progresses the enemy should be subjected to an increasingly intensified aimed fire. Ammunition is conserved by keeping the rate of fire down except when a very favorable target appears. As the attack closes every effort must be made to keep all guns in action, casualties in gun crews being replaced by riflemen, if necessary. The enemy is subjected to the maximum fire possible. Any indications of infiltration through the protective lines of the heavy guns should be met by maneuver and fire of the light guns.

Almost all the fire of light machine guns will be by direct laying. Where clearance is obvious from the nature of the ground, or where there are only a few men in front of the gun, especially in combat when peacetime safety precautions do not apply, overhead fire may be used.

No instruments, such as the lensatic compass, clinometer, angle of site instrument, etc., are furnished light machine gun units. Simple forms only of indirect laying are used, such as having an observer with field glasses call fire data to a gunner who cannot see the target due to sight and position defilade, and laying guns in daylight for fire after dark.

The proper technique of fire of the light machine gun is fairly simple, and should be well known by all gunners. If proper technique is used, the weapon will fill a very useful purpose in closing the gap between the rifle and the heavy machine gun.

Characteristics of Field Artillery

With Particular Reference to Horse Artillery Operating With Cavalry

Prepared by LIEUTENANT COLONEL HAROLD C. VANDERVEER, Field Artillery

GENERAL

THE purpose of this article is to assist the service reader toward an understanding of what field artillery can do and how, and of what it cannot do, and why. Only with such an understanding can full value of coöperation of field artillery be secured either in practice or in theory.

Too often in the past this understanding has not existed. In many armies, including our own, officers of other arms have little opportunity in peace to see the garrison work of field artillery, and less opportunity to see its field firing. In particular, maneuvers of the combined arms, with co-ordinated actual fires by each, are almost unheard of in peace, because of the element of danger involved. Perhaps as a result, it is a rather general comment among artillerymen of many nations that senior officers commonly do not realize either the value or the need of field artillery when they enter upon the first campaign after outbreak of war—but that they frequently learn by bitter experience before entering upon the second campaign.

We have good use for intelligent officers in the Field Artillery, but have no need for many mathematical wizards. I think a good parallel may be found in the case of navigation: mathematical experts have deduced methods, and prepared tables, and, by use of these, many a less brilliant man takes his ship in safety from port to port. Nevertheless, competent shipping companies employ the most intelligent skippers they can find. Field gunnery is much the same. The methods must be learned, but not necessarily their deduction. Nevertheless, we need the most intelligent officers we can get.

Of course the Regular artillery officer has use for a good education; trigonometry and the use of logarithms are not infrequent, and rarely we have use for a little calculus. But mental arithmetic and the principles of plane geometry are in constant use, and, of course, we find that among wartime officers, those whose civilian experience has been as engineers, surveyors, and the like, have usually a considerable advantage, their training having given them mental agility along most useful lines. There is nothing in field artillery gunnery that should ever puzzle anyone with anything like a university education. The very real difficulty is to acquire confident familiarity with the many different types of fire control necessitated by the need to fire under any conditions and any difficulties.

In trying to describe how field artillery delivers its fire, I shall talk first of field artillery in general, later modifying what I have said as it applies in particular to horse artillery operating with cavalry.

All the guns and howitzers used by field artillery of any of the great powers are of what is known as the quick

firing long recoil type. The breech action is not automatic, but permits rapid reloading, and the design is such as to permit the gun to recoil a considerable distance on the carriage, checked and return to firing position by a hydro-pneumatic brake. This permits considerable steadiness of carriage, and fair rapidity of fire. Rates in excess of six rounds per minute for the 75-mm gun are harmful to the mechanism, and usually prohibited.

The field gun is a large object. Posted on the crest or forward slope in action, it will be very conspicuous, and will not last long in the presence of modern artillery and automatic weapons. In order that its fire may be uninterrupted, it is equipped, therefore, with sights which permit laying either by direct or indirect methods. When direct laying is used, the gun is pointed by looking through the sights at the target. This involves exposure of the gun, and, contrary to popular belief, it does not assure nor permit an increased rate of fire. It does, however, with the present armament, give better promise of hits upon rapidly moving targets, as, for instance, tanks or armored cars. Such hits must be gotten quickly, for the gun in an exposed position will not last long after fire is opened.

Perhaps it will be worthwhile to illustrate and drive home this point by an example. The British learned this lesson as long ago as 1899. At Colenso, in South Africa, two batteries of guns were brought into action in the open, within effective rifle range of the intrenched Boers. This was the first time such a thing had been attempted since the appearance of modern magazine rifles on the battlefield. The immediate result was a storm of rifle fire so severe and so accurate that the guns could not be worked at all, the surviving men were gotten away with great difficulty, gun teams could not get anywhere near the position, every attempt to rescue the guns resulted in terrific losses (including the son of Lord Roberts, the Commander-in-Chief), and finally all but two of the guns were lost.

The use of indirect laying (pointing the gun without looking at the target through the sights) from defiladed positions, does not imply undue caution, but only reasonable use of what means are possible to conserve men and matériel. The use of indirect laying is the usual procedure, and has become so for several reasons aside from caution. Among these reasons is the fact that the fire of a battery, in action, using indirect laying, is very much more flexible, and much more readily subject to intelligent control, than is the case with direct laying. When indirect laying is used, the entire mass of the battery's fire is easily controlled by one man rather than by many. Moreover, withdrawal from action and resupply of ammunition in action are usually entirely practical in indirect positions,

but would be almost impossible under modern automatic fire if the guns were posted without defilade.

But indirect laying has its disadvantages. With present armament, it is not very effective in securing direct hits upon targets in rapid motion. Moreover, it involves the establishment of communication from OP to gun position. This takes time, varying with the circumstances. Frequently, it is far better to allow the comparatively short time necessary, than to take the large chance of losing the guns by posting them for direct laying. This is a good point at which to mention one quite frequent vital error in the handling of field artillery. Low trajectory weapons, if they are to fire from behind a crest, and at short ranges, must frequently be posted well back from the crest, at distances varying with the degree of the slope and with the minimum range desired. When, by an error of technique on the part of the artilleryman, or by an error of judgment on the part of a senior commander, guns in such a situation are placed too close in rear of the crest, their fire is very effectively blocked. An excellent example of this occurred in 1918, in action of an American Division along the Vesle River. Infantry was in action on a crest just north of the river, and supported by two battalions of Field Artillery posted just south of the river. In this circumstance, a senior commander insisted that one field artillery battalion cross the river "to render closer support." This was done, some losses were suffered from shell fire in crossing, and the battalion on reaching its new area found the slope to be such that there was no position from which its fire at the desired ranges was possible. It could not fire on the German infantry, but fired throughout the remainder of the action only into enemy rear areas. Meantime the other battalion, on the south bank, continued to render effective support throughout. The lesson to be learned is that an officer of another arm, desirous of the close support of field artillery in action, should bear in mind that the field artilleryman not only has with him small instruments of precision which will tell him accurately from what positions his guns can or cannot fire, but is generally closely familiar with the capabilities of his particular gun. When in such a case an artilleryman says that his guns must be located well back from the crest to fire effectively, it is probable that he knows what he is talking about. Officers of the supported troop units are concerned primarily with what can be accomplished by placing the *fire* of the artillery where it is desired, not with placing the *guns*, for it is the *fire* that does the work. Of course there may be times when (with present day armament) it will be necessary to post guns for direct laying, in order to combat tanks, for example. In such a case the guns should be concealed as thoroughly as possible, and should not be permitted to disclose their position by firing at other targets before the tanks appear.

When artillery fires by indirect laying, every effort invariably is made to secure a position of observation, wherein an officer may watch the target and the point of fall of the rounds fired, correcting errors in the data, and bringing the fire to bear upon the target. Let me repeat

that the utmost effort invariably must be made to secure such observation; without it there can be no certainty that the fire of artillery is effective. Of course such observation is of importance to all commanders but it is of the most immediate and vital importance to the artilleryman. And, of course, it is generally difficult to obtain, both because folds in the ground, forests, and the like, limit the points from which vital areas can be seen, and because the enemy will make every effort to retain possession of points which do provide observation. The whole history of war is replete with stories of struggles for commanding ground, and in this day of modern weapons commanding ground means ground from which observation can be had. Sometimes the necessary observation is feasible from points near the available gun positions, and when this is so, accurate artillery fire is possible very promptly. In other cases the only OP's possible are remote from the possible gun positions, and this involves delay to establish communications, varying of course with the situation. When the communication is complete and can be maintained, accurate fire is possible.

Sometimes no ground observation is possible. When, in such cases, the services of observation aircraft and competent observers are at hand, accurate artillery fire again becomes possible, and remarkable things have been done along this line. But the involved difficulties are great, and adjustments generally are secured quite slowly. Ground observation is many times better if it can be had.

And, of course, the artillery can fire without observation. By map, by airplane photograph, by map or photograph corrected for weather conditions, by transfer of fire from a visible target to an invisible one, by ranging with high bursts, or by sound, or by flash—a score of methods are known and practiced. But all are somewhat complicated, each involves quite a degree of time, all are very difficult in the early stages of an action or in warfare of rapid movement, and none compares with observed fire in certainty. Observed fire is the one certain answer to our needs. Other methods are only substitutes, and like all substitutes they are of great value only because the real thing sometimes cannot be obtained.

It will be noted that I have described how field artillery may be posted for indirect laying behind a crest, that it must then have communication with its observation posts, that flat trajectory guns must often be posted a long way behind the crest, and that the wire lines to the OP are then quite long and take a good while to install.

ARTILLERY OPERATING WITH CAVALRY

Almost all our experience is to the effect that when field artillery operates with infantry, we have enough time to complete such installations. But when horse artillery operates with cavalry, particularly against cavalry, the action is apt to be so brief, and the maneuver so wide and so rapid, that no such time will be available. How is the need then to be met?

First: By equipping horse artillery with its new light howitzer, whose curved trajectory allows it to be emplaced

close behind the covering crest, without long wire lines, and whose light weight enables it readily to be run up onto the crest by hand when necessary to use direct laying on rapidly moving targets.

Second: By providing radio sets in each battery of horse artillery, thus in many cases avoiding the need to lay long wire lines from guns to OP.

Third: When attached to cavalry forces of the size of a brigade or smaller, whose maneuver is very rapid, to be prepared boldly to place the guns close up, on the crest, for direct laying, when this is necessary. In such a case, the losses will probably be very heavy, and must be endured. Perhaps we may hope that the fleeting nature of such actions will often save our artillery from the inevitable destruction which would await it in such positions in a longer continued action.

Before we go farther, it is well to refer for a moment to historical example, to point out the error of any impression that artillery methods are so technical that the guns cannot be worked under difficulties. An example from horse artillery is chosen as of particular interest to readers of *The Cavalry Journal*.

On the first of September, 1914, during the Allied retreat before the Battle of the Marne, the British cavalry and horse artillery, after several days of retreat and delaying action, were naturally in considerable confusion, and at Néry the pursuing Germans came upon some of them unawares. The following quotation is from an account which, while vivid, is of general verified accuracy: (Please remember that a British battery has six guns and is commanded by a Major.)

The First Cavalry Brigade, greatly exhausted after screening the retreat so long, was encamped near Néry, to the south of Compiègne, the bivouac being a somewhat extended one. Two units were close to each other and to brigade headquarters. These were a squadron of the 2d Dragoon Guards and L Battery of Horse Artillery. Reveille was at four o'clock, and shortly after that hour both troopers and gunners were busy in leading their horses to water. It was a misty morning, and, peering through the haze, an officer perceived that from the top of a low hill about seven hundred yards away three mounted men were looking down at them. They were the observation officers of three four-gun German batteries. Before the British could realize the situation the guns dashed up and came into action with shrapnel at very short range. The whole twelve poured their fire into the disordered bivouac before them. The slaughter and confusion were horrible. Numbers of the horses and men were killed or wounded, and three of the guns were dismounted. It was a most complete surprise, and promised to be an absolute disaster. A body of German cavalry escorted the guns, and their rifles added to the volume of fire.

Everything combined to make defense difficult—the chilling hour of the morning, the suddenness of the attack, its appalling severity, and the immediate loss of guns and men. A sunken road ran behind the British position, and from the edge of this the dismounted cavalymen brought their rifles and machine gun into action, but suffered heavily from the shrapnel fire. Three guns were utterly disabled. There was a rush of officers and men to bring the other three into action. The major of the battery and one lieutenant were already down. Captain Bradbury took command. Two of the remaining guns were at once put out of action, so all united

to work the one that remained. Lieutenant Gifford in rushing forward was hit in four places. Bradbury's leg was shattered, but he lay beside the trail giving his orders. Lieutenant Mundy standing wide as observation officer was mortally wounded. The limber could not be got alongside and the shell had to be manhandled. In bringing it up Lieutenant Campbell was shot. Immediately afterwards another shell burst over the gun, killed Bradbury, and wounded the only four remaining men. Two of these men fainted from loss of blood. But the fight went on. The remaining two, wounded, crouched behind the shield of the thirteen-pounder and kept up the fire, and now the amazing fact became visible that all this devotion had not been in vain. The cluster, of Dragoon Guards on the edge of the sunken road was joined by the brigade commander and staff, who themselves came into the firing line. Several of the German pieces had gone out of action. The dying gun had wrought good work, as had the Maxim of the Guards. Some at least of its opponents had been silenced before the two gunners could do no more. Not only had the situation been saved, but victory had been assured.

About eight in the morning news of the perilous situation had reached the 19th Brigade. The 1st Middlesex was hurried forward, followed by the 1st Scottish Rifles. Marching rapidly upon the firing, the Middlesex found themselves in a position to command the German batteries. After two minutes of rapid fire it was seen that the enemy had left their guns. Eight guns were captured; two of them still loaded. About a dozen German gunners lay dead or wounded round them. Twenty-five of the escort were captured, as was an ambulance with some further prisoners a mile in the rear. The cavalry, notably the 11th Hussars, endeavored to follow up the success, but soon found themselves in the presence of superior forces. New wheels and new horses were found for the injured guns, and L Battery's matériel came intact out of action.

The above is quoted to illustrate that artillery can be worked with direct laying, and under difficulties.

It happens that I have referred twice to British examples, but the American horse artillery has no need to defer to any force on earth regarding pride of tradition. It was an American named Pelham who resigned from the Military Academy in the spring of 1861, at the age of twenty, to go with the Confederacy, and who commanded Jeb Stuart's horse artillery as long as he lived. He commanded nineteen guns at Antietam, and fifty guns at Fredericksburg, and when he was killed in action after less than two years of active service, he had fought his horse artillery in about sixty actions and never lost a gun. It was he to whom Lee referred in dispatches as "the gallant Pelham" and to whom Stuart gave withdrawal orders at Fredericksburg as follows: "Get back from destruction, you infernal gallant fool." If you are going to judge by past performances, I don't think you need worry about how your horse artillery will work its guns.

SOME ARTILLERY CHARACTERISTICS AND CAPABILITIES

With this introduction, we may now consider some artillery characteristics of value:

First, the reasonable dependability of its fire under practically all conditions.

Second, its ability to deliver an enormous volume of fire, from a very narrow front, and to do it suddenly and with very violent effect when desired.

Third, its consequent ability to protect itself from attacks in its own front.

Fourth, its great range, permitting it to reach deep within the enemy's lines, to inflict losses and compel deployment at great distances, and to continue to inflict losses over long periods and wide maneuver.

Fifth, the extreme flexibility of its fire, over a wide area. This provides a highly mobile reserve of fire power, if the ammunition of field artillery is conserved for important targets. This in turn provides one of the few means by which a commander may hope to influence the course of an action after once his troops are committed. Unless artillery units have been too generally "farmed out" into complete control of subordinate units of the supported cavalry or infantry, the fire of a large part of the artillery may very rapidly be united from positions all along our line, and concentrated upon one vital area in the enemy's lines, without moving the guns, and with no advance warning to the enemy, thus securing tactical surprise.

Sixth, the ability of artillery to remain in action over comparatively long periods. On the Western Front it was customary to leave the field artillery of divisions in action, when the infantry was relieved for rest. This is made possible by the fact that artillery losses in defiladed positions are generally less than those of troops in closer contact. Moreover, cannoners work in groups, are easily controlled, and are little subject to scattering and straggling. It is a recognized principle of psychology that men working in groups around mechanical devices are not inclined to excitement but have a predisposition to work quietly and coolly.

Seventh, due to its long range and its usual defiladed positions, light field artillery frequently withdraws from action, and reengages from another position with greater ease than do other arms. The value of this characteristic in delaying action is obvious.

ARTILLERY LIMITATIONS

As has already been brought out, field artillery has also its pronounced limitations, a realization of which is just as important as an understanding of its capabilities:

First, it cannot act except by fire.

Second, it is very vulnerable when in movement, cannot fire at all when in movement, and goes into action from movement in a matter of several minutes at best, rather than seconds.

Third, its consequent dependence upon the other arms for protection, resulting in its complete unsuitability for employment as an independent and self-sustaining arm. I should like to expand upon that point a little farther. Artillery is dependent upon the other arms for protection; this does not mean that an infantry or cavalry unit need be detailed, customarily, to duty as an escort for the guns. This may in an unusual case be necessary, but the security needed can ordinarily be assured by placing the artillery in the march column, or locating it in battle, in such a way that it will be protected by the presence of the other arms

in their normal positions. Sometimes suggestions are made looking to an increase of artillery security by changing its own organization. For instance, a suggestion recently has been made that certain artillery units include an enormously increased number of machine guns, for their own defense. But in the opinion of most field artillerymen, such an idea is fundamentally unsound, as organization and training with so large a number of automatic weapons would make the unit not really field artillery at all, but only an ineffective compromise. The accepted thought of the field artillery is that effectively to work its guns is about all that it can do surely. We believe that when a situation arises where a commander contemplates an operation in which it will be difficult to provide protection for his artillery, he had best weigh the question and decide whether the value to be gained from the artillery is worth the cost of protecting it during the operation. If not, the artillery had best be left behind.

Fourth, reverting to our tabulation of limitations, we have the difficulty sometimes experienced in securing observation, and diminished fire effect resultant from lack of observation.

Fifth, the appreciable time, varying widely with conditions, sometimes necessary to install signal communications.

Sixth, the large weight and bulk of matériel and ammunition, the considerable transportation and road space so made necessary, and the consequent fact that hills, heavy mud, etc., will often slow the light artillery down more than they will the cavalry.

Seventh, the fact, already discussed, that concealment by defilade, and ability to fire at short ranges, are sometimes in conflict, and require careful selection of gun positions.

It is important that the very great road lengths of artillery units are realized. Please note that one gun battery of horse artillery will occupy nearly one-half mile of the road, and that the battalion occupies nearly two miles, of which over a mile is needed for the batteries and headquarters units, even if the combat and field trains be left behind at the tail of the cavalry column. The horse artillery regiment occupies about two and six-tenths miles for the batteries, about one mile for the combat trains, and about one-half mile for the field trains, or a total of a little over four miles for the whole regiment. These figures will make clear to you why it is that artillery combat and field trains so frequently are marched at the tail of the combatant units in the column, thus allowing certain fighting units to be marched about a mile and a half nearer the head of the column (in case of the horse artillery regiment).

CONCLUSIONS

1. Artillery may be posted for either direct or indirect laying. Indirect laying positions are the usual practice, for several reasons, but at times it will be necessary to post horse artillery for direct laying against rapidly moving targets.

2. Artillery can be fired, with some degree of accuracy, without observation, but this is only a substitute, and observation must be sought constantly and at almost any cost.

3. *Artillery renders its assistance to the other arms with its fire, not with its guns. An officer of another arm, seeking artillery support, will wisely concern himself with the fires desired, rather than with the technical details of locating artillery positions.*

4. Artillery has certain technical and tactical limitations which require consideration, but possesses also certain tactical capabilities which render it of great value to the supported arms. Realization of its limitations and understanding of its capabilities are essential to its effective employment.

5. Artillery road spaces are large and demand careful consideration when placing artillery units in a column of combined arms.

Departmental Texts

DURING the past year as a special project the Departments of the Academic Division have each prepared texts for their respective departments, with a view to combining under one cover practically all data and information required by that department in the conduct of its courses.

The texts are a compilation of matter contained in basic field manuals, training regulations, manuals, school texts, etc., and a considerable amount of new material not heretofore published. They are divided respectively into volumes, parts, chapters and sections, stapled by chapter and prepared for arrangement in loose leaf, stiff backed binders.

The Department of Weapons and Matériel text consists of three volumes divided into seven parts, generally subdivided as follows: General Subjects (including the technique of the regimental headquarters and machine-gun troop), Light Machine Guns, Musketry and Combat, Packs and Harness, Heavy Machine Guns, Special Purpose Weapons (including the caliber .50 ma-

chine gun, the submachine gun, and the 37-mm gun), Firing at Moving Targets, both Ground and Aerial, Demolitions, Radio Sets, and Motor Vehicles. Text is profusely illustrated and contains a considerable quantity of new material for which there has been much demand.

The Department of Tactics text consists of one volume, in three parts: Tactical Principles (Horse Elements), Tactical Principles (Mechanized Elements), and Logistics. It replaces the former school publication, Tactical Principles and Logistics.

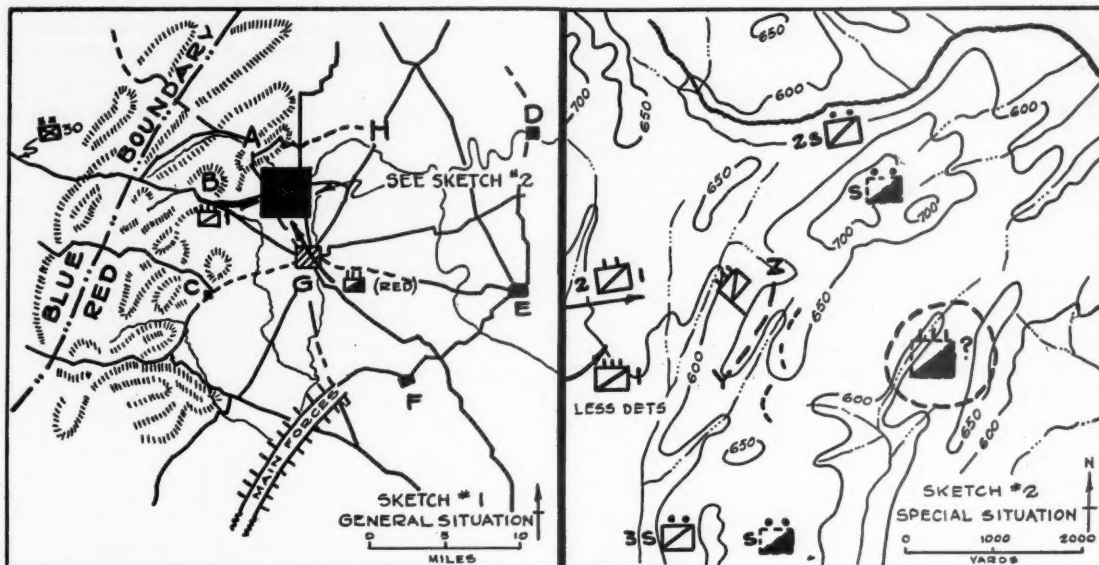
The Department of Horsemanship text consists of one volume divided into four parts as follows: Education of the Rider, Education of the Horse, Animal Management, and Horseshoeing.

The texts are for sale at a minimum cost and can be obtained through the CAVALRY JOURNAL or direct from the Book Department, The Cavalry School. It is believed every Cavalry officer, Regular, National Guard, or Reserve, should have these books in his personal library.

MILITARY DRILL is one of the most democratizing elements at work in our student body. It crosses all lines of college, church, fraternity, or social organization. It is susceptible to no pull or favoritism. It measures all classes, rich and poor, idle and industrious, social and misanthropic, by the same standard and insists on efficiency or elimination. Its principle is "do" or "get out"—a most desirable antidote for the enervating policy of indulgence pursued by so many American parents and college faculties which tends to develop a race of mollicoddles and inefficients.

I am not disturbed by the fears of some of my pacifist friends that such military drill as we are proposing will develop a militaristic spirit. This nation is much more likely to go to pieces upon the greed of Mammon, or indulgence in the lust of the eye and of the flesh, or the pursuit of pleasure and other dangerous rocks of that kind than upon any development of a warlike spirit.—DR. EDMUND J. JAMES, president of the University of Illinois, before the Military Committee, House of Representatives.

NOTES FROM THE CHIEF OF CAVALRY



What Would You Do?

"... So with the situation as just outlined in mind, we will take a ten-minute period for you to solve the last requirement," concluded Major Dex Terrus, instructor, Department of Tactics, who was at the moment conducting a conference problem with the officers' class at the Cavalry School.

The situation outlined was briefly as follows: (See Sketch No. 1, General Situation). The 1st Cavalry at war strength, Colonel A commanding, had been attached to the Blue 30th Infantry Division. Today, April 20th, it is at B, at the exit of a mountain pass in Red territory, some 16 miles east of the division's concentration area. At 5:00 P.M. Colonel A receives orders from the 30th Division to reconnoiter to the line D—E to locate hostile movement or disposition in the zone A—H—D—B—G—F—E and to oppose such hostile movement east of the general line H—G as can interfere with the debouchment of the division from a series of passes including the one at B. Leading elements of the division are to reach the line A—B—C at 1:30 P.M. tomorrow, April 21st, Red cavalry is operating at peace strength.

On April 21st, at the crack of dawn, the 2d and 3d Sections of the Scout Car Platoon initiated reconnaissance. At 4:45 A.M. reports were in the hands of Colonel A that Red scout cars had been operating in his zone and later, that what was estimated as a regiment of Red horse cavalry was observed entering G from the southeast at 5:00 A.M.

With this information, Colonel A marched at 5:15 A.M. in the direction of advance of the Red cavalry regiment

to block it. Scout cars, in the interim, were ordered to delay the Red movement to the west. The advance guard consisted of one squadron, the 3d, with attachments of machine guns. Motor elements of the regimental trains were left behind awaiting orders.

The Red cavalry continued its movement toward the northwest. Colonel A, his mission in mind, changed his direction to interpose his command.

The advance guard was ordered to increase its rate of march, gain contact with the enemy and seize the high ground along the general line Y—Z (see Sketch No. 2, Special Situation). The advance guard was stopped in the vicinity of its objective by automatic fire from the ridge opposite. The flank points of the Blue advance guard moved rapidly to determine the strength of the hostile resistance but were forced by heavy fire to return to the ridge Y—Z. Scout cars, both Blue and Red, were on the flanks.

By 6:15 A.M. the situation as known to Colonel A, his commander's group and squadron and machine gun troop commanders was as shown on the sketch. The requirement was the decision of Colonel A as of 6:15 A.M.

"All right, gentlemen," interrupted Major Dex Terrus, the time limit having expired, "now for Colonel A's decision."

Calling on Captain Strad L'Her and then Captain De Furr without satisfactory results, Major Dex Terrus addressed Captain Real I. Ubbel: "If you were Colonel A, regarding his decision as of 6:15 A.M.,

WHAT WOULD YOU DO?

(For solution, turn the page.)

SOLUTION AND DISCUSSION

Captain Real I. Ubbel arose, notes in hand, and, without much ado, replied: "At 6:15 A.M., Colonel A, at his location (on the Y-Z ridge as shown in Sketch No. 2) decides to attack the Red regiment without delay from the high ground about 1,500 yards to the northeast, enveloping the hostile right (north) flank and rear, and drive the Red cavalry to the southeast."

Upon dismissal of the class, Captains Strad L'Her and De Furr reread the issued solutions. "Just like in these 'pay' map problems, they always get me," said Strad L'Her. "Somehow or another, I always tie things up. I always, in my opinion, do the things to lick the Reds, but the Tactics Department never agrees with me. It may be that I'm an embryonic Napoleon. We have that in common—he didn't and I don't seem to accept so-called 'accepted' principles."

"You're not alone," sympathized De Furr, "I'd give them what they want, if I could only dope it out. I was going to delay in that situation. The doughs will get to their line if I hold off long enough. It would certainly accomplish the mission. Not only that, but if I *did* attack, I would attack from the south instead of the north. Look at the terrain, but then, you know, you can't outguess them. Listen to this, here's the discussion of the school solution. . . .

"Immediate offensive action against the weaker Red cavalry is necessary because of the Blue mission. By defending or delaying the Red cavalry would be given the opportunity of moving the bulk of his force to the north across the river. The Reds would then be able to move on the pass at A. This would either cause Colonel A to fail in his mission or make more difficult his task of removing the threat against part of the Blue 30th Division.

"The high ground about 1,500 yards northeast of Colonel A's location is dominating. The river must be considered. If the Reds are attacked from the south, they will be forced onto this high ground. That high ground affords good cover for a movement of the Reds across the

river to the north. Obviously then, Colonel A should seize this dominating ground himself, and then drive the enemy away from the direction of the passes."

"You just can't beat them. Let's go home, it's getting dark."

The next day the inseparable pair, Strad L'Her and De Furr, simultaneously pulled papers from their distribution boxes in the Academic Building:

—AS TO MAP PROBLEMS

(Anonymous)

We turned them in and breathed a sigh,
And waited then, while weeks went by;
We got them back—a muffled cry!
Cause I gotta "U"
And you gottan "I."*

We tried again—this for a "Sup,"
We'd knocked that baby for a loop;
We got them back—I thought I'd die
Cause you gotta "U"
And I gottan "I."

With ardor dampened, we tried for "Ex,"
We pulled the rope tight round their necks,
But Tactics won. There was no tie,
Cause you gotta "U"
And I gottan "I."

And then we figured "S" was fair;
We caught the Reds right in their lair;
Sure, something's wrong, one can't deny
Cause I gotta "U"
And you gottan "I."

The next to come, did it help much?
We "lack technique," we've "lost the touch,"
For honors now we cannot vie—
Cause you gotta "U"
And I gottan "I."

(Department of Tactics, the Cavalry School.)

*EDITOR'S NOTE: "Sup"—superior; "Ex"—excellent; "S"—satisfactory; "U"—unsatisfactory, and "I"—inferior, represent grades given on papers.

Some Rifle Platoon Methods

Try them on your platoon.

By 1ST LIEUTENANT A. R. DEL CAMPO, 5th Cavalry

THIS article offers some amplifications on existing training regulations concerning the rifle platoon. The methods described have helped the writer in the training and handling of platoons. They are methods of mechanical handling rather than tactical maneuvering. They are simple. A platoon composed entirely of recruits mastered them in a short time.

THE POINT—CONNECTING FILE—MAIN ELEMENT TEAM

Existing regulations lay down the general principles of the functioning of this team. General principles are all right for GHQ, but the lower down we get the more specific instructions should be. The instructions for the trooper must be definite and concrete. The writer tried every known method of handling the above team, in-

cluding the usual one of bawling out the connecting files and point commander. Finally he accepted the responsibility himself and devoted some study to the problem. The result is a definite set of simple rules to be followed by the connecting files and point. When taught to the platoon, it was surprising how quickly the rules were grasped, and how they were even welcomed.

The final proof was demonstrated recently when the writer was marching a platoon of recruits on a dark night. The point commander and platoon sergeant (who were marching the main element) were corporals. All others were recruits on the fifth week of training. Acting on a whim, the writer instructed the point commander to leave



FIGURE 1—Platoon properly disposed.

the route of march (a broad road) and move by a circuitous and winding trail through a dense mesquite forest containing many interesting trails. It was a dark night; only the point commander and platoon leader knew of the change of route, and only the point commander knew where he was going. The platoon, under the command of the unsuspecting platoon sergeant, followed the point without hesitation through the jungle at a distance from the point about three times the range of visibility. A system which gives such results must be foolproof. Here it is. (See Figure 1.)

Let us assume our platoon is on a patrol (or advance party) mission.

Four men and a corporal make a nice point. Each man has a sector to observe. The corporal handles his point.

Two connecting files are sent out. They provide *uninterrupted* liaison between the point and main element.

All members are responsible for observation as shown by the arrows. We must now prescribe definite rules of conduct so that these men *can* maintain this observation and *uninterrupted* liaison. Here they are.

RULES OF DISTANCE

1. The two connecting files *never* ride closer to each other than twenty yards. (This is to prevent conversation.)
2. The rear file *never* loses sight of the main element of the platoon.
3. The rear file *tries* to ride as close to the leading file as rules 1 and 2 above permit, and *tries* to keep him in sight.
4. The leading file *never* loses sight of the rear file.
5. The leading file *tries* to ride as close to the point as rule 4 allows, and *tries* to keep in sight of the point. He avoids getting mixed up with the point, however.
6. The rear man of the point *never* loses sight of the leading file. When in danger of doing so, he calls to his point commander who slows down or stops the point to permit fulfillment of this rule.
7. The point commander *tries* to maintain the maximum distance allowed, but *never* violates rule 6.
8. No member of the point gets out of sight and moderate

voice range of at least one other member of the point, preferably the commander.

We see, thus, that the entire platoon is bound from front to rear by an unbroken chain of visual communication, regardless of terrain or visibility. In spite of bends in the road, etc., an armored car seen by the leading man of the point is signaled to the main element in less than three seconds.

This is how it works in a platoon trained to this method. The point is ordered to proceed at not to exceed, say 500 yards distance.

With good visibility, and on flat ground, the platoon is disposed as in Figure 1, in compliance with the rules enunciated. Note the connecting files close to the point, and over four hundred yards from the main element.

Now the platoon is on the winding road shown in Figure 2, and moving east.

This is how the individuals concerned act in accordance with their respective enunciated *principal* rules of distances.

As the point rounds the road bend at A, its rear man pauses there for an instant until relieved by the leading file, who increases his gait, if necessary.

The leading file pauses there until relieved by the rear file, who also increases his gait, if necessary.

The rear file remains in the road bend where he can see the main element and his leading file.

At B, the leading file finds it necessary to remain halted to avoid losing sight of his rear partner. He remains looking in both directions.

When the point reaches C, the rear man warns the corporal who stops his point around the bend.

At this instant the platoon is disposed as seen in Figure 2, and remains this way until the main element reaches A.

(If now an armored car were to round the bend at D, the main element would be almost instantly warned by the relay of signals.)

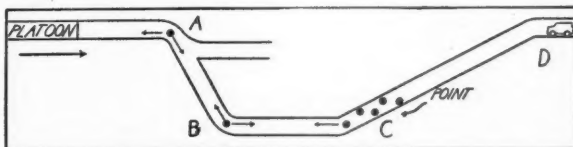


FIGURE 2—Showing action of platoon at road bends.

When the platoon reaches A, the rear file moves at an increased gait to relieve the file at B. The latter hurries to C, and releases the point which proceeds on its way.

When the platoon again reaches an open locality, connecting files and point hurry forward to comply with their respective *secondary* rules of distances. That is, the point strives to regain its 500 yard limit, and the connecting files to ride close to the point.

It may be argued that this method imposes a rigid requirement for the point always to *precede* the main element. The writer believes this to be normal in any movement on a definitely prescribed route, where the presence

of the enemy is only problematical, as is the case on a normal patrol, or on a march. The point commander then worries only about a *possible* enemy, and his own distance ahead of the main element. The main element, in comparative security, sets the pace for the entire force. Besides, it is entitled to a smooth day's march.

In the other case, where the movement is in the vicinity of a definitely located enemy, and where the movement is "by a covered route" which is determined as we move, it should be considered normal for the main element to follow the leading element. This leading element is properly called a covering force. It "feels" its way both as to terrain and the enemy, and should not be hustled along by the element in rear.

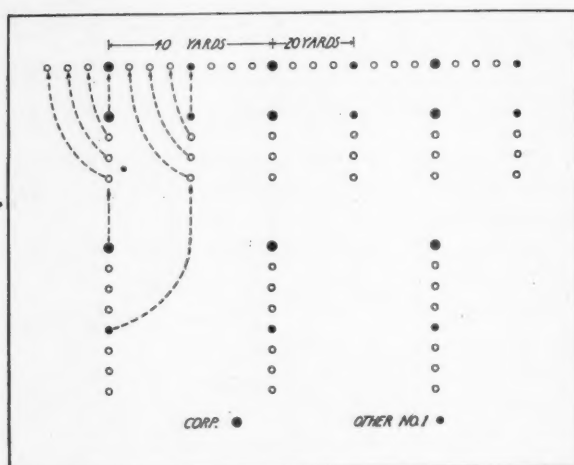


FIGURE 3—Maintaining proper intervals.

In this case, there is no problem, as the only worry of the leader of the main element is to keep up with the covering force, which is necessarily slowed down by halts at various bounds for observation and for selection of route.

He does this by (1) keeping fairly close to the rear connecting file, and (2) by increasing the gait of the main element when he observes the rear connecting file halting to keep him in sight. Disposed for instant battle, he moves close behind the covering force, without jamming up.

INTERVALS

Some people talk of "at least 10 yards between troopers" in FORAGERS. A full platoon so deployed is at least 250 yards from flank to flank. The writer believes that the regulation 5-yard interval should be considered normal, and larger ones exceptional. In other words, the troopers take up that interval upon signal, but the platoon leader must prescribe any other interval he may want.

On this assumption, squad leaders should be taught to deploy at intervals of 40 yards between corporals in FORAGERS, LINE OF SQUAD COLUMNS, and

LINE OF HALF-SQUAD COLUMNS, the three deployed line formations.

In LINE OF HALF-SQUAD COLUMNS, the numbers 1 simply split the interval between corporals.

These prescribed intervals are taken up automatically on signal, or simple verbal command.

These intervals facilitate interchanging between the three formations with the minimum of movement and no confusion.

To illustrate this facility (See Figure 3), let us execute an approach march, first in LINE OF SQUAD COLUMNS. The corporals take up positions 40 yards apart upon simple arm signal.

Then the platoon leader signals LINE OF HALF-SQUAD COLUMNS. The leading sets of fours simply continue the march. The numbers 1 split the intervals between corporals, followed by their sets of fours.

The platoon leader decides on FORAGERS and so signals. The corporals and numbers 1 simply continue the march, the rear men merely moving up into the intervals, just fitting at 5-yard intervals.

The idea is simply that, the regulations having stated that FORAGERS is *normally* at 5-yard intervals, they should also have definitely stated that LINE OF HALF-SQUAD COLUMNS and LINE OF SQUAD COLUMNS should be *normally* at 20- and 40-yard intervals, respectively. That would give everybody something definite to go by, and would permit interchangeability of formations with the least moving about.

The writer has no brief for any tactical doctrine here. If you like FORAGERS at 10-yard intervals, your other two intervals should be 40 and 80 yards respectively. If you like 15 yards, then carry the idea to its logical conclusion and train your men to 60 and 120 yards respectively.

FIGHT ON FOOT, ACTION FRONT

The regulations state that squads should assemble in columns of fours. I see no necessity for this. This article offers a method which is faster, simpler, and puts fewer horses in any bunch.

At the command FIGHT ON FOOT, (See Figure 4), all numbers 1 dismount at once in place. Numbers 2, 3, and 4 assemble on him, completing the movement promptly. If this movement is done from LINE OF SQUAD COLUMNS, the groups of horses are about 40

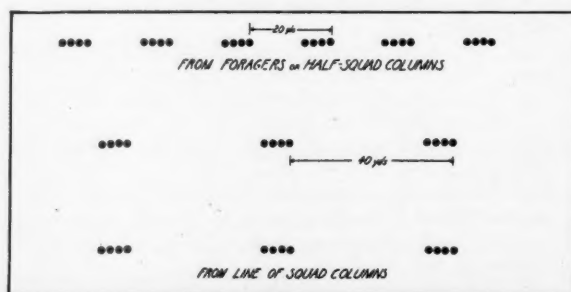


FIGURE 4—A suggested method of grouping horses.

yards apart. Furthermore, the movement can be completed in one-half the time required by the regulation method, for number 4 of the second set of fours of each squad is only half as far from his number 1 as he is from his squad leader.

If the movement is done from FORAGERS or LINE OF HALF-SQUAD COLUMNS, the groups of horses are about 20 yards apart. However, there are only four, instead of eight, horses to a group.

As soon as the riflemen are clear, the sergeant file closer can dispose the horses as he sees fit.

* * * *

There is one amplification which is not so important, but the writer likes it because it saves time. The rule is, UNLESS OTHERWISE ORDERED, dismounted men take up immediately the dismounted formation corresponding to their last mounted one. For instance, if in FORAGERS, they form as SKIRMISHERS.

An Interesting Night Ride

BY MAJOR CLYDE PICKETT, Cavalry

ON October 24th the 3d Squadron, 107th Cavalry, Ohio National Guard, held its annual night ride for enlisted men. This year's ride was particularly interesting to the observers as well as the contestants because it was more in the nature of a point-to-point ride.

All enlisted men of the Squadron and Medical Detachment, 107th Cavalry, except recruits, were eligible to participate.

The purpose of the ride is:

a. To test the ability of each trooper, under actual field conditions.

- (1) To correctly interpret written orders,
- (2) To read a map.
- (3) To travel at a prescribed rate of march.
- (4) To become accustomed to finding routes and recognizing terrain features in the night.
- (5) To keep the horse in satisfactory condition.

b. To provide interest in the form of a contest for which a suitable reward is provided.

This year's ride was planned and conducted by a group of National Guard Reserve and Organized Reserve Officers under the leadership of Captain J. D. Mawhinney, National Guard Reserve, former Commanding Officer of Troop I.

Many of the participants had, on Thursday nights for about two months, participated in informal but controlled group rides over roads and trails in the vicinity of the town of Milford. In planning the contest, it was decided to place the route over unfamiliar terrain and this was accomplished in the greater part.

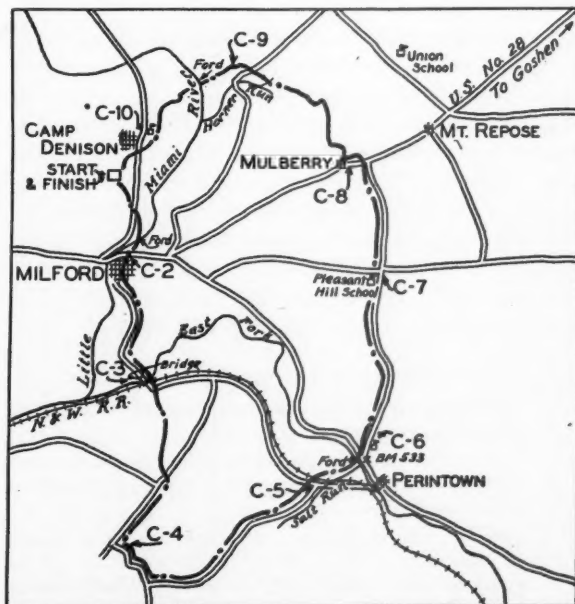
The route selected, as shown by the accompanying sketch, was ridden over by a committee of Reserve Officers who carefully observed the road and ground conditions, selected locations for Points, and arranged the following control stations:

- No. 1. (Start.) Cincinnati Cavalry Farm.
- No. 2. American Legion Headquarters, Riverside Park, Milford.
- No. 3. Steel Bridge over East Fork of the Little Miami River, south of Milford.
- No. 4. Road Junction 2.8 miles south of No. 3.

- No. 5. Road Junction, Round Bottom and Salt Run roads.
- No. 6. Red brick school house, Route 50, .3 mile northwest of Perintown.
- No. 7. Pleasant Hill School, Route 131 and Wolf Pen Road.
- No. 8. Miami Township School, Route 28, Mulberry.
- No. 9. Boy Scout Winter Camp "Ye-lo-he," Horner Run, 900 yards east of Little Miami River.
- No. 10. Red brick school house, Route 126, Camp Dennison.
- No. 11. (Finish.) Cincinnati Cavalry Farm.

The distance between control points was measured and from these distances a tentative schedule was prepared which would maintain a rate of march requiring an average of six miles per hour on graveled roads or good cross-country going and four miles per hour on hard-surfaced or difficult cross-country traveling. This tentative schedule was then tested by a committee, riding the route and checking actual time against the tentative schedule.

The schedule, as finally set, together with remarks on



Route of night ride of 3d Squadron, 107th Cavalry.

ground and footing conditions, follows:

SCHEDULE OF DISTANCES AND TIME

Control Station	Mileage	Miles Per Hour	Minutes Travel Time	Minutes Station Stop	Road Conditions
No. 1..	0	0	0	0	
No. 2..	0.9	5	12	2	About half on hard surfaced roads.
No. 3..	2.0	4	30	2	All hard surfaced roads, auto traffic.
No. 4..	2.8	6	25	5	Trail through woods up hill, then gravel road.
No. 5..	3.6	7	30	5	Graveled road.
No. 6..	1.1	4	16	2	Hard surfaced road.
No. 7..	2.5	7	20	5	All graveled road, steep grade.
No. 8..	1.4	4	20	3	Hard surfaced road.
No. 9..	2.4	7	20	5	Graveled road, then trail.
No. 10..	1.8	6	18	2	Mostly graveled road.
No. 11..	1.0	4	15	0	Hard surfaced road.
Total ..	19.5	5.7 (Average)	206	31	(237 minutes elapsed time.)

Weather conditions on the night of October 24th were excellent, a crescent moon giving just enough light to observe the road immediately in front of the rider but not enough assistance to make it possible to see the road or terrain for any appreciable distance. It was sufficiently cool to make trotting a welcome exercise to both horse and rider. During the latter part of the ride the contestants found themselves enveloped in a dense fog, so dense that even the ford at the river could not be seen. More than one rider got a wetting as the result of having missed this ford. There had been no rains during the previous week and the ground and graveled roads were in excellent condition. The river was also easily fordable at the selected crossing points.

Twenty-two enlisted men and three officers of Troop F, 123d Cavalry, Kentucky National Guard, marched from their armory at Covington, Kentucky, a distance of about 25 miles, to witness this ride. They did not compete in the ride due to the 25-mile afternoon march, but some of the men borrowed horses and accompanied contestants. The officers assisted at the control stations.

Control stations were manned by officers of the 3d Squadron, Cavalry-Reserve officers and officers of Troop F, 123d Cavalry. These assembled for dinner previous to the ride and received the following instructions:

INSTRUCTIONS FOR OFFICERS AT CONTROL POINTS

1. Open station at the time shown on the envelope containing your "canned" messages.
2. Upon arrival on location go to the nearest house, introduce yourself, tell the inhabitants what is going on, in order to avoid complications.
3. Organize your headquarters to include (a) Chief of unit, (b) Recorder, (c) Horse officer, (d) Inspectors. In case the group does not include a sufficient number of individuals to cover all these functions separately, duties should be combined in one person but not omitted.

4. Discourage, as much as possible, the desire on the part of guests and friends to follow the contestants over the course. The course in a number of places is impassable to automobiles but the worst phase of this practice is that the glare of numerous headlights spoils the ride for the troopers.
5. Keep records accurately and insist on exacting time penalties whenever they are due. Do not return the trooper's passport card to him until you release him.
6. The Indian Hill Rangers and the Clermont County Sheriff's office have been given the details of the ride.
7. In case of necessity or emergency, call the Cavalry Farm (Milford 763-R).

At each control point the contestant turned over his passport card upon which was recorded his time of arrival, time penalties (if any), station time, and time of departure. The contestant, upon presenting his passport card, was handed a typewritten message containing instructions for procedure to the next station. A map was available for his inspection. His horse was carefully inspected and if found too warm a time penalty was awarded. At the expiration of the station time, plus any time penalties, the contestant was handed his passport card and released.

The passport card was issued each contestant when he was handed his orders and released at the start. The passport card was in the following form:

No.	Arrive	Par	Penalties	Station Time	Leave
C. P.					
1	X	X	X	X	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					X

Finish time _____

Elapsed time _____

Orders issued each trooper at the various control stations are as follows:

- No. 1. Proceed at once to the American Legion Headquarters, Riverside Park, Milford, Ohio. Ford the Little Miami River at the riffle below the Gant Farm. Rate of march: 5 miles per hour.
- No. 2. Proceed at once to the road junction location exactly $4\frac{1}{2}$ miles, airline, due south from the Cavalry Farm. Cross the east fork, Little Miami River, at the South Milford bridge where you will contact friendly civilians who will furnish you with the most recent developments in the enemy situation. Rate of march: 4 miles per hour.

- No. 3. Proceed on your way to the point designated in previous instructions. From the friendly civilians that you have just contacted you learned that there is considerable enemy activity in the area ahead and that all improved roads are patrolled. It is imperative that you push on at a faster rate of march by the most direct route if you are to achieve your mission. Rate of march: 6 miles per hour.
- No. 4. The enemy have withdrawn to the east. Blue aviation reports a column of Red cavalry crossing the bridge into Perintown. You are ordered to proceed via the Salt Run Road to the Norfolk and Western R.R. and determine the strength and disposition of the Red rear elements. Rate of march: 7 miles per hour.
- No. 5. The Reds have withdrawn out of Perintown to the north in the direction of Mulberry. Proceed at the rate of 4 miles per hour to the brick school house at B.M. 533.
- No. 6. The Reds are retiring rapidly to the north. You are ordered to push on rapidly in pursuit. Endeavor to overtake their rear guard. Very little resistance may be expected as the enemy are reported to be badly disorganized. Rate of march: 7 miles per hour.
- No. 7. The enemy are reported to be changing the direction of their withdrawal to the northeast. Blue aviation reports what appears to be the Red main body moving through Mt. Repose toward Goshen on Highway 28. Move out cautiously and proceed to the vicinity of the Miami Township School at Mulberry. Rate of march: 4 miles per hour.
- No. 8. The Reds have completed their withdrawal from Mulberry. Instead of withdrawing toward Goshen, however, they are taking up a new position in the

vicinity of Union School which seriously threatens the safety of the 314th Cavalry on our left. You will proceed rapidly by the shortest possible route to the CP, 314th Cavalry, located on Horner Run, 900 yards east of the Little Miami and advise the Commanding Officer, 314th Cavalry, of the danger of his position. Rate of march: 7 miles per hour.

- No. 9. All horses of the 314th Cavalry have scours. The regiment is practically dismounted. The enemy have the roads in both directions blocked. You have been detailed to take a message to the Commanding General, 54th Cavalry Brigade, at the school house, Camp Denison, Ohio, advising him of the plight of one of his units. Rate of march: 6 miles per hour.
- No. 10. If you have managed to get this far you are not so bad. Take it easy, walking or leading back to the Cavalry Farm. Rate of march: 4 miles per hour.

Twenty-nine contestants started. No. 1 was departed at 7:49, followed by the other twenty-eight at two-minute intervals. Eighteen finished by 3:00 A.M. when the ride was declared ended and those not in were directed to proceed directly to the Farm.

No. 19, who was started at 8:25 and who finished at 1:10, was declared the winner with 4 hours and 45 minutes elapsed time or 4 hours and 14 minutes marching time, and no time penalties assessed. However, he was 48 minutes behind the possible minimum.

The 3d Squadron is commanded by Major Roy Green, a Westpointer who was commissioned and served in the Engineer Corps until about 10 years ago when he resigned and entered business in the city of Cincinnati.

The Greeks Had a Man For It

BY CAPTAIN E. R. GUILD, *Coast Artillery Corps*

HOW many of you have stood, blue-faced and hoarse, on a windy drill field, shouting commands at a body of troops, who, oblivious to your puny voices, have cheerfully gone ahead and committed mayhem upon the body of the drill regulations?

Hmm! That makes it about unanimous.

But still more difficult are the voice-throwing problems of the ROTC instructor. From his usual post on the sidelines he must correct and instruct from six to a dozen cadet officers who are simultaneously engaged in maneuvering as many units.

The problem with the Boise ROTC unit is further complicated by an eight-block march to the drill field. Since the time involved is included in the schedule, the instructor has to conduct most of the unit's close-order drill during this march. Here the trouble begins for the column takes up a couple of city blocks and human lung-power will not cover it. One solution is leg-power—the instructor might race back and forth along the column and attempt to do his stuff while engaged in this marathon.

Would a flying Stentor be a boon to a lost battalion?

Marathon! That word suggests the Greeks and who can think of the Greeks without thinking of the Trojan War? Now in that war the Greeks

had a man named Stentor whose voice was as loud as fifty together. When Stentor told a couple of phalanxes those phalanxes stayed told.

We needed a Stentor, so we got one. Not a live one, but a mechanical one, full of radio tubes and coils, and powered by an automobile battery. This robot Stentor does not resemble his famous namesake. In fact he looks more like a suitcase than anything else and he tips the scales at only thirty-five pounds. But don't be fooled by appearances. Hook him up, whisper gently in his ear and he will blow a recruit's hat off at a range of 800 yards; feed him with phonograph music and he will blare forth like a fifty-piece band.

Our Stentor is a simple fellow—a ten-watt amplifier, a microphone, a loud speaker, a portable phonograph with an electric pickup, and a six-volt battery. Everything except the phonograph and battery fits into a compact carrying case.

On the march, the loudspeaker is fixed to the fender



UPPER: *The Stentor makes a compact load.*
 BELOW: *The Stentor in action.*

of the instructor's car. The microphone is rigged up in front of the instructor so that it will not interfere with his vision and the amplifier is placed on the front seat beside him. An assistant twiddles the dials and runs the phonograph on the back seat. The car cruises along the column, and the instructor makes corrections when and where needed without wear and tear on the throat, lungs, and nerves. Band music, timed to an exact 128 per, is faded in at intervals to liven up the march; and the twist of a dial subdues it to a background, while the instructor tells the leading platoon, two blocks away, what it needs to be told.

With Stentor on the drill field it is no longer necessary to assemble the leaders for instruction. A quietly spoken word halts every unit while the instructor stresses a point in the drill. Not only the leaders, but everyone on the field hears the explanation, and hearing well, they heed well.

The Stentor has even been used to good advantage on small-scale maneuvers in the hills.

SPECIFICATIONS AND COST

The amplifier utilizes a type 37 tube as a speech amplifier and mixer, a type 6A6 tube as a driver, and two

type 42 tubes in the push-pull output stage. The double button carbon microphone plugs in with a twenty-five foot cord. A ten-inch electro-dynamic speaker with a thirty-five foot cord is used and there are receptacles for two of them. If necessary, four to six additional speakers can be rigged up. There is independent control of tone, microphone volume, and phonograph volume. Speech and music can be mixed together. The storage battery supplies the tube filaments and the microphone power direct. The plate or "B" current is obtained from a generator operating from the battery. A 100-ampere-hour 6-volt battery will operate the set from five to six hours.

The cost is low: amplifier with tubes, generator, microphone, one speaker, plugs, clamps, and cords—\$49.95; battery—\$4.45; phonograph—\$9.95; pickup—\$4.45; total—\$68.80, plus shipping charges. An extra speaker with a carrying case costs \$14.95.

The Stentor in use by the Boise ROTC unit has received fairly rough treatment in the six months it has been operated. The maintenance cost during this period was \$10.00, which included new tubes, repair, and battery charging.

The set described is light and handy, but a larger one with more versatility is recommended for wider uses. The larger set has twice the power (20 watts) and a radio jack; the amplifier and phonograph turntable are conveniently combined in one box. The set operates from one battery. Its cost, including two speakers and one mike is \$117.00. Adding two trumpets and units which can be mounted fore and aft on top of a car would bring the cost to \$159.00.

A number of variations suggest themselves: the set can be wired for a crystal mike, which is much superior and permits the use of a lapel microphone—setting free the hands for gestures. Or, an A.C. set can be used in conjunction with an A.C. automobile generator driven by the fan belt of the car. The generator costs \$35.00.

When not in use outside, the outfit can be set up in barracks—mike in the orderly room, speakers in day room, mess hall, and squad rooms. Here smaller speakers, costing less than \$5.00, will fill the bill.

As Stentor served the Greek army, so can his modern counterpart serve the United States Army, both in peace and in war. As I sit at this typewriter a stentorian voice urges that I use somebody's soap. I go to see who shouted into my window. Two thousand feet above a plane circles. The plane has a voice and that voice is brought to my ear—the voice of Stentor.

Would a flying Stentor be a boon to a lost battalion? Would it help various units out of contact with elements on their flanks? Would it be a stop-gap for broken telephone lines, jammed radio reception and disabled runners? Perhaps we are approaching the day when every supply room will have a shelf labeled: Stentor, G.I., complete with carrying case.



Indians! Turn out! Indians!

Twenty To One

BY MAJOR STUART R. CARSWELL
Infantry

THE westward advance of the American frontier was a continuous struggle, with the small but hardy Regular Army ever in the forefront of battle. Not only had the natural difficulties of a new country to be overcome, but a brave and fierce enemy had to be defeated and conquered. One of the most spectacular fights in this savage warfare occurred in September, 1868, when Major (Brevet Colonel) George A. Forsyth and his company of fifty scouts came to death-grips with Roman Nose and 1,000 Cheyenne and Sioux warriors.

From 1861 to 1865 all the energy of the government had been concentrated on winning the Civil War. The Army posts on the western frontier had been stripped of Regulars, and small garrisons of volunteers had been substituted. These garrisons were too weak to take the offensive against the Indians and punish them for their bloody raids against the settlers.

After the Civil War the Regular Army was reorganized and distributed to cover the frontier as far as could be done with the small force available. The Indians, flushed with success, determined to stop any further advance of the whites by the simple process of murdering them and carrying off their young women and children.

The construction of the Kansas Pacific Railroad to Denver was being pushed, and the Indians saw that this advance meant the extermination of the great buffalo herds

and other game that swarmed the country. At a council held at Fort Ellsworth, Kansas, in March, 1866, Roman Nose, Black Kettle and Big Head, chiefs of the Northern Cheyennes, bitterly protested the building of the railroad. Roman Nose insolently defied the government and demanded that work on the railroad cease. He said, "This is the first time I have ever taken the white man's hand in friendship. If the railway is continued I shall be his enemy forever."

Colonel Fry, who saw Roman Nose at the council, has left a graphic description of him:

Roman Nose moved in a solemn and majestic manner to the center of the chamber. He was one of the finest specimens of the untamed savage. It would be difficult to exaggerate his superb physique. A veritable man of war, the shock of battle and scenes of carnage and cruelty were as the breath of his nostrils; about thirty years of age, standing six feet, three inches high, he towered giant-like above his companions. A grand head with strongly marked features, lighted by a pair of fierce black eyes; a large mouth with thin lips, through which gleamed rows of strong, white teeth; a Roman nose with dilated nostrils, like those of a thoroughbred horse, first attracted attention, while a broad chest, with symmetrical limbs on which the muscles

When Colonel George A. Forsyth, 9th Cavalry, and fifty scouts came to death-grips with Indians.

under the bronze of his skin stood out like twisted wire, were some of the points of this splendid animal. Clad in buckskin leggings and moccasins elaborately embroidered with beads and feathers, with a single eagle feather in his scalp lock, and with that rarest of robes, a white buffalo, beautifully tanned and soft as cashmere, thrown over his naked shoulders, he stood forth, the war chief of the Cheyennes.

During the next two years bands of Sioux and Cheyennes carried on their bloody work of rapine, murder and destruction. They literally swept the Kansas frontier bare. In one month they captured or killed nearly ninety settlers.

Finally General Philip H. Sheridan, the department commander, took the field in person with such forces as he could collect. With him went a young staff officer, Major (Brevet Colonel) George Alexander Forsyth, 9th Cavalry. Major Forsyth had enlisted in a company of dragoons at the outbreak of the Civil War and had ended it as a brigadier general of volunteers. He had served on Sheridan's personal staff and had accompanied him on his famous ride from Winchester to Cedar Creek. He was noted for his courage and daring. Known affectionately among his friends as "Sandy," he had won the warm regard of all by his soldierly qualities.

Having arrived on the frontier in the midst of a stirring Indian campaign, Forsyth sought to take an active part in it. Being a young and junior major, he had small chance of getting a field command. The best Sheridan could offer him was a company of scouts he was about to raise. Forsyth jumped at this and within the hour had his orders to recruit and organize the company.

Each scout was to be paid a dollar a day, and thirty-five cents a day for the use of his horse. They were to be equipped by the government. Each man was to be issued a Spencer repeating rifle (seven shots), a Colt revolver, and 140 rounds of rifle ammunition and 30 rounds of pistol ammunition. Four pack mules were to carry camp kettles, picks and shovels (for digging for water), 4,000 rounds of ammunition, medical supplies, and rations. Each man was to take seven days' cooked rations in his haversack.

Forsyth enlisted the pick of the frontier. In two days he had selected thirty men at Fort Harker. He then marched to Fort Hays, sixty miles further west. Two days later he had completed his company. Nearly half of the men were frontiersmen and trappers and the rest were

former soldiers of the Union and Confederate armies, many of whom had been officers. Probably every man in the company had a history worth telling.

The second in command was Lieutenant Fred H. Beecher, 3d Infantry. He was a nephew of the famous Henry Ward Beecher, and had served in the Civil War with outstanding gallantry. He had been lamed for life at Gettysburg, where he received a bullet in the knee. A natural born plainsman, crack shot, cool, and courageous, Beecher was just the man to second "Sandy" Forsyth.

The surgeon was Dr. John H. Mooers, who had come west in a spirit of restless adventure and settled at Fort

Hays. The guide and chief scout was "Sharp" Grover, an experienced plainsman. Grover knew the Indians thoroughly, spoke the Sioux dialect, and was a dead shot. He was noted for his coolness and bravery. Always resourceful and keen on the trail, Grover could match every trick of Indian craft. As a scout and guide, he was without a peer.

The first sergeant of the company was William H. H. McCall, who had been colonel of a Pennsylvania volunteer regiment during the war. He had been brevetted a brigadier general for his brilliant services at the siege of Petersburg in 1865. After the war he, too, drifted

to the west in search of an opportunity for advancement or distinction.

Two other outstanding figures in the company were Louis Farley and his young son, Hudson Farley. They were frontier farmers and possessed the high courage and daring typical of the Anglo-Saxon pioneer. They were the best shots in this company of picked men. Altogether it was a hard-bitten group of veteran fighters that left for Fort Wallace on August 29, just five days after Forsyth had received his orders to organize the company. Supremely confident in themselves and their leaders, they were willing to face any odds.

Shortly after arriving at Fort Wallace word came that the red raiders had struck a freighter's train near Sheridan, thirteen miles to the eastward, and had killed several men. Forsyth determined to proceed at once to the scene. Accordingly, on September 10 he set out with fifty-one men and officers.

On arriving at the scene of the attack, Grover quickly picked up the trail of the war band. It was easy to follow at first but it soon became evident that the Indians were scattering by dropping out on hard ground suitable for



Roman Nose.



They dug shallow rifle pits.

covering their tracks. The next morning the trail completely disappeared.

The command halted and dismounted. Forsyth then held a brief conference with Beecher, Grover and McCall.

"There is no doubt the Indians have seen us and are keeping us under observation," said Grover. "They have scattered and are going to join their main body."

"I don't believe we can overtake them before they get back to their main camp," said McCall. "They will have time to mass all their strength against us, for they know we are after them. I think they will meet us on the way with all their fighting men."

"I believe McCall is right, Colonel," said Grover. "We are bound to run into a big fight if we keep on."

"Well," said Forsyth, "I came out to fight and I am going to do it. We will mount up at once and continue the march."

On the fifth day out from Fort Wallace the scouts struck the trail of a small war party leading toward the forks of the Republican River. Other trails cut into it at intervals. Soon it became a wide, beaten road. At the Arickaree fork of the Republican River, in eastern Colorado, it crossed to the south bank.

Several of the old-timers reminded Forsyth of the danger of being overwhelmed by the Indians if he pushed on farther, but Forsyth replied that it would be more dangerous to retreat than to advance. The men made no further comment. They knew they were soon to have a big fight and looked forward to it with eagerness.

Late in the afternoon of September 16, the command passed through a small gorge and entered a little valley about two miles in length and about as wide. Here the Arickaree ran through the center of a grassy plain. The stream was fringed with wild plum thickets, alder bushes and swamp willows. Low hills about fifty feet high enclosed the valley.

The river bed was about 140 yards across. In the mid-

dle of it was an island about sixty yards long and twenty yards wide. The upper end of the island was about two feet above the water level and was covered with a thicket of stunted alders and willows four to five feet high. A stream four or five yards wide and less than a foot deep ran languidly along either side of the island. There had been little rain for some time and the rest of the river bed was dry.

About four o'clock in the afternoon the scouts made camp on the south bank of the Arickaree opposite the center of the island. They were now nearly out of rations. Both horses and men were thoroughly fatigued by the hard work of the past six or seven days. The scouts hoped to obtain a good night's rest and allow the horses to recover somewhat by grazing on the rich grass around the camp. The next day they expected to meet and engage the Indians.

In view of the dangerous situation, the sentries for the night were carefully selected and posted by Forsyth personally. Lieutenant Beecher and First Sergeant McCall were directed to inspect each horse to see that it was properly hobbled and secured against an Indian attempt to stampede the herd. The company was warned to expect an attack or raid on the camp at daylight and to be ready to meet it.

Dawn found Forsyth standing by one of the sentries. Suddenly they caught sight of something moving on the skyline. An instant later they heard the soft thud of unshod hoofs. Then the feather-crowned heads of three warriors came into view. Forsyth and the sentry fired together, and shouting "Indians! Turn out! Indians!" ran for the camp. A moment later the crest was lined by savages.

The Indians paused for a moment and then charged at a gallop, shouting, beating drums and rattling dried hides in an attempt to stampede the horses. The camp had been warned, however, and every man was standing to horse

and ready to fire on the stampeding party. The raiders swept on until Forsyth shouted "Let them have it, boys!" Rifles cracked. One of the dim figures plunged to the ground, while the rest wheeled about and galloped off. The attempted stampede had netted the raiders only two horses and two mules that had managed to pull their picket pins.

"Saddle up quickly, men," shouted Forsyth, "then stand to horse."

As the day broke visibility increased. Suddenly Grover clutched Forsyth's shoulder and pointed down the valley.

"My God," he cried. "Look at the Injuns!"

From over the crests of the hills, out of the ravines and out of the thickets, on foot and on horseback, they poured. The route through the gorge by which the scouts had entered the valley was apparently still open for retreat, but Forsyth was too wise to be taken by such an obvious stratagem. He realized instantly that a perfect ambush had been laid there. The idea of cutting through the swarms of Indians was impracticable. There was only one thing to do—occupy the island at once.

"Men, we must get over to the island and fight it out there. McCall, you and the Farleys cover our left flank from the bank here. Beecher, take Grover and Burke and cover our right flank. Join us when I signal you."

Once on the island the scouts quickly tied their horses in the thickets at the upper end, then threw themselves on the ground and began firing from beneath the animals. The rear guard was called in and all hands settled down for the fight. The Indians rushed to the river banks and opened fire. One scout was killed and several badly wounded. At the height of the action someone shouted, "Don't let's stay here and be shot down like dogs! Will any man try for the opposite bank with me?"

"I will," answered a man from the opposite side of the circle.

"Stay where you are!" cried Forsyth, revolver in hand. "It's our only chance. I'll shoot any man who attempts to leave the island."

"And so will I," shouted McCall.

This ended the only sign of panic that appeared during the course of the action.

The Indian rushes were driven back to the cover along

the river banks. Forsyth calmly walked around the circle of his command.

"Steady, men!" he called. "Steady. Aim low. Don't throw away a shot."

In time the cool, accurate fire of the scouts had its effect; the enemy slowed up their fire and edged back to better cover. Many Indian dead and wounded had been carried to the rear where they were received with wild wails from the squaws and children who lined the farthest hills.

During the comparative lull that now ensued, the scouts dug shallow rifle pits in the sand with their butcher knives and tin plates. Nearly all of the horses had been killed; a few, badly wounded, still plunged and reared.

Forsyth continued to walk about unmindful of the danger, but the appeals of his men finally induced him to lie down. Just as he did so a bullet struck him in the right thigh and ranged upwards. A moment later another smashed his left leg between the ankle and knee. Dragged into Dr. Mooers' rifle pit, he sat up with his elbows braced against the sides, and continued to direct the fighting.

The men were now pretty well covered from the heavy fire and were returning it slowly and deliberately. Meanwhile, just out of range, several hundred mounted warriors were milling about, yelling and waving their rifles. Riding up and down their line was a tall, powerfully built warrior, evidently the chief in command.

"Grover," called out Forsyth, "isn't that big warrior Roman Nose?"

"None other," replied Grover. "There is not such another Injun on the plains."

"Then these are the Northern Cheyennes?" asked Forsyth.

"Yes, and the Oglala and Brulé-Sioux, and the Dog Soldiers as well," said Grover. "There are more than a thousand hos-tiles there."

"I doubt that," said Forsyth.

Leaning out to get a better view, Forsyth was knocked half senseless by a bullet which grazed the top of his head. This wound, though not serious, brought a blinding headache to the leader in addition to the pain from



The personification of barbarian glory.



He cut deeply and carefully into the flesh.

his two severe leg wounds. A little later Dr. Mooers, who had been doing splendid execution with his rifle, shot one of the mounted Indians. As the brave fell, Mooers remarked, "That rascally Indian won't trouble us again." The next instant Forsyth heard the sound of a bullet crashing through bone, and saw the doctor clap his hand to his head. He had been shot in the forehead just over the eye. He died three days later.

The sniping on both sides continued but something more serious was brewing. The mounted Indians had moved downstream and Roman Nose was forming them, under cover of the river bend. It was a wild and savage scene in the valley. The chief could be seen gesticulating and haranguing his braves. The "big medicine man," a gallant old fellow, galloped up and down beating his drum and exclaiming, "The white man's bullets will melt before you." The women and children on the hills were dancing and shouting songs of victory. Others were pressing closely behind the warriors, determined to follow and share in the bloody work. The old men sang of the brave deeds of their forefathers to excite the young warriors to a reckless frenzy.

"Beecher," called out Forsyth, "I believe they are getting ready to charge and ride us down."

"I think you are right, Colonel," Beecher called back.

"Yes," yelled Grover, "and they will be on us pretty quick too."

"Then let the men get ready," said Forsyth. "See that the magazines are full. Have the guns of the dead and badly wounded loaded and ready at hand. Look to your revolvers too. If a mounted charge is made, don't reply to the fire of the Indians on the banks. Everyone be ready to face the charge. Don't fire until I give the word."

At about nine o'clock, an artillery bugle sounded and Roman Nose moved out. He advanced at a slow trot, followed by his massed horsemen. Wave after wave came into view until the scouts had counted eight close lines of sixty men each. Clearing the bend, they halted just out of range. Here they dressed their ranks while Roman Nose delivered a final brief exhortation. Then, at the word of command, they swept down upon the island at a full gallop.

It was a splendid sight—that charge of savage cavalry, with Roman Nose in the van. He was mounted on a big, fine chestnut horse, his knees passing under a lariat that loosely encircled the animal's body, reins and rifle in his left hand, his right free to direct his followers. Naked except for his cartridge belt, moccasins and an officer's crimson sash around his waist, his face painted in alternate stripes of red and black, his head crowned with a magnificent war-bonnet from which projected two short black buffalo horns, he was the personification of barbarian glory.

The Indians concealed along the river banks now opened a heavy covering fire. Despite his wounds, Forsyth still retained full command of his men. Propped up in his rifle pit with his back and shoulders resting against the pile of earth, his rifle and revolver in hand, he calmly watched the charge. Crouching low in their pits, the company grimly waited.

As the onrushing mass came within good mid-range, Forsyth raised himself on his elbows and shouted, "Now! Let them have it!" The command was repeated by Beecher, McCall and Grover. Instantly the scouts were on their knees, rifles to their shoulders. A sheet of flame burst from the island. It was answered by a savage yell as men

and horses went plunging into the sandy river bed. A second and third volley smashed into the charging mass. It was impossible to miss now. Wild shrieks came from the watching women as they saw the slaughter of their braves.

The old medicine man who led the left of the charging column went down on the fourth volley. The fifth accounted for Roman Nose and his horse. With courage and coolness, the most expert shots on the frontier were picking off the leaders. But still the Indians came on. A hundred yards more and they would be on the island.

The sixth volley, at fifty yards, and the seventh, at point-blank range, tore the charge to pieces. Like a wave striking a rock, it divided and surged around the island. Then the scouts leaped to their feet, and at close range jammed their revolver shots into the faces of the disorganized foe. With cries of rage the Indians threw themselves on the off side of their horses and raced for cover.

"Down, men! Lie down!" cried Forsyth.

"Get down! Down for your lives!" shouted McCall.

The warnings came just in time. Scarcely had the men flung themselves in their pits when a scorching volley came from the banks. Beecher crawled painfully over to Forsyth and lay down by his side. Resting his face on his arm, he said quietly, "I have my death wound, Colonel. I am shot in the side and dying."

"No, Beecher, no!" cried Forsyth. "It can't be as bad as that."

"Yes. Good night," said Beecher faintly.

There was nothing to be done for him. He soon became delirious. By evening he was dead.

The Indians had paid a terrible price for their reckless charge. The ground they had covered was dotted with dead braves and horses. Closer in they lay in groups. The lines of dead clearly showed the effects of the seven volleys.

"Can they do better than that, Grover?" asked Forsyth.

"Man and boy, I have been on the plains for more than thirty years," replied Grover, "and I never saw anything like that before. I think they have done their level best."

"All right, then," said Forsyth cheerfully, "we are good for them."

Roman Nose's successor in command promptly set about to organize another attack. With a powerful voice, easily heard by the scouts, he harangued his followers. "We are many and the whites are few. The white bullets are wasted. Once more and we bring the white men's scalps to our fires." The young warriors yelled a fierce

assent. Grover, who heard and understood what was said, shouted at the top of his voice, "Hello, old feller, got any more braves to kill? This is pretty tough, ain't it?"

The surprised chief turned and shouted back, "You speak right straight."

About two o'clock in the afternoon the Indians made their second mounted attack. This time they charged in more open order, but again the destructive fire of the scouts was too much for them. They broke and fled before they got within a hundred yards of the island. Shortly after five o'clock they made one more desperate attempt. Again the scouts coolly picked them off. A few reached the island only to meet death from the revolvers. So decisive



He pointed toward the hills.

was this repulse that everyone felt they would not try again.

A check of the casualties among the scouts showed two officers and four men dead or dying, and Forsyth and sixteen men more or less badly wounded. The latter suffered severely for want of the skilled care of Dr. Mooers, who lay dying. To make matters worse, all of the surgical instruments and supplies had been lost on the two mules that the Indians stampeded. Fortunately a heavy rain about nightfall afforded some relief.

Indians rarely attack at night, for they believe that a warrior killed in the dark must pass all eternity in darkness. Therefore, Forsyth felt reasonably secure for the night. However, he did think that an attempt would be made to rush the island at dawn. Accordingly, he had the rifle pits deepened and connected.

The defenders settled down to stand a protracted siege. They were out of rations but their dead horses would supply them with meat. Water and ammunition were abundant. The condition of the wounded, however, made quick relief imperative, so Forsyth called for volunteers to try to get through to Fort Wallace, about 110 miles distant. Every man who was able to travel volunteered for the

perilous trip. Forsyth selected Pierre Trudeau, an old trapper, and Jack Stilwell, a young lad of nineteen, born and bred on the frontier. They were to tell Colonel Bankhead at Fort Wallace of the plight of the scouts and ask him to come at once to the rescue. Shortly after midnight they left, Stilwell taking Forsyth's rough map. They stole out of camp, walking backwards in their stockinged feet. When well out among the dead Indians they began crawling. Several times they barely escaped discovery. By daylight they had made only two miles. On the night of the fourth day they reached Fort Wallace in a state of exhaustion. A relieving force started at once, with Stilwell as guide. Trudeau, too exhausted to return, died shortly afterwards from the hardships of this journey.

Contrary to Forsyth's expectations, the Indians did not attack in force the next day. Several sporadic attempts to reach the island were easily halted. The day was again intensely hot and the wounded suffered terribly, but fortunately there was no lack of water. That night two more scouts tried to slip through the enemy lines in an effort to reach Fort Wallace, but the vigilance of the Indian sentries forced them to return.

The third day was cloudy and quieter and all hands had an easier time of it. During the afternoon Grover noticed that the Indian women had ceased their wailing and were leaving. This confirmed Forsyth in his belief that the enemy had given up the fight. That night, Donovan and Pliley were sent out in a third effort to get word through to Fort Wallace. They succeeded in evading the Indians and eventually ran across the relieving force.

The fourth day was hot and all suffered severely. The meat had become putrid and the stench from the dead horses was almost unbearable. Some of the wounded were delirious. The ball in Forsyth's right thigh had become so painful that he decided to have it out. When the men he called upon to perform this piece of rough-and-ready surgery refused to attempt it because the bullet lay too close to the main artery, Forsyth did the job himself. With the assistance of a man who pressed back the edges of the wound, he cut deeply and carefully into the flesh and finally got the ball out. During the day few Indians were seen and there was little firing.

On the fifth day the horse meat became so bad the men could not eat it. A young coyote provided the only available food.

On the sixth day Forsyth discussed the situation with his men. He stated that relief might or might not be on the way, that the well men could probably make Fort Wallace by keeping together and marching at night, but that the wounded would have to take their chances. His offer was met with shouts of "No! Never! Never! We'll stand by you to the end."

Two days more of hunger and misery dragged out. The Indians had disappeared but it was not deemed safe to venture far from the island stronghold. There was nothing to do but wait and hope.

On the morning of the ninth day, one of the men suddenly sprang to his feet and pointed toward the hills. Instantly every man was on his feet, and every eye was strained in that direction.

"By the God above us, it's an ambulance!" yelled Grover.

A cheer went up. In a few minutes Captain (Brevet Lieutenant Colonel) L. H. Carpenter galloped up at the head of Troop H, 10th Cavalry (colored). When the starving survivors had eaten their fill, the wounded were loaded into the ambulance, and all started for Fort Wallace.

Some months later the Indian losses were fully ascertained. They had seventy-five killed and over two hundred severely wounded.

* * *

Several years later, at a grand buffalo hunt given by General Sheridan in honor of the Grand Duke Alexis of Russia, Forsyth was told that one of the young chiefs of the Brulé-Sioux wished to discuss the fight on the Arickaree. After a long talk, Forsyth asked the chief, through an interpreter, how many Indians were present in the battle. The young chief said there were about 970 Sioux and Cheyennes. He admitted a loss of seventy-five killed and "heaps" wounded. Just as he started to leave he asked the interpreter a question.

"He wants to know whether you got enough of it," said the interpreter.

"Tell him yes, all I wanted," replied Forsyth. "Ask him if he did."

The chief opened his buckskin shirt and pointed to the scar left by a bullet that had torn its way through his lungs and then, with a grim half-humorous look, nodded in the affirmative.

READINESS FOR WAR depends on more than mere numbers, even numbers under arms. It depends on what has been well-called fitness to win, which in turn is made up of more things than are dreamed of in the philosophy of most men. But of all its factors, readiness to meet the first blow is probably most important.

A Roman FSR

By COLONEL OLIVER LYMAN SPAULDING, *Field Artillery*

A WIDE divergence of opinion has arisen from time to time in discussions relative to military books which should be read by every Army officer. During the Middle Ages there would not have been such lack of agreement. Then, one book would have sufficed and the experts would have been unanimous. All would have named *The Epitome of the Military Art*, by Flavius Vegetius Renatus.

Vegetius was the first author of a work comparable to a modern Field Service Regulations. He did the job so well and covered his subject so thoroughly that for a thousand years and more his text was the military bible of every literate soldier of western Europe.

He dedicated his book to the reigning emperor, and intimates that it was written by royal command; the monarch's name is not mentioned, but critics generally believe him to have been Valentinian II, Emperor of the West, A.D. 375-392. Nothing is known of the writer, but he appears to have been a man of rank and consequence. Probably he was a theoretical student of the art of war rather than a practical soldier, for nowhere does he hint at personal experience. He claims no originality, but insists that his work is a compilation, based upon authorities whom he names—Cato, Celsus, Frontinus, Paternus, and the Emperors Augustus, Trajan and Hadrian. Little remains of their writings. Even the army regulations of the three emperors have been lost.

Only in a limited sense can we speak of Vegetius' work as Field Service Regulations, for it contains not only precepts, but also numerous historical and controversial passages, explaining how the ancients did things. The writer is distinctly a conservative; he defends the Roman system against the intrusion of foreign doctrines and inveighs against the indifference and neglect of a degenerate age.

Vegetius pays tribute to the discipline and training that made Rome the mistress of the world. He writes:

Victory is gained, not by weight of numbers and untrained courage, but by skill and discipline. We have seen the Romans conquer the world by no other means than skill in arms, and the rigid discipline and thorough training of their troops. How otherwise could a handful of Romans overcome the multitudes of the Gauls? How else could the short-statured Roman face the giant German? The Spaniards are superior to us not only in number but in physique, the Africans in subtlety and in wealth, the Greeks in the arts and sciences. Against all this the Romans could oppose extreme care in the selection of recruits, diligent instruction in the use of arms, inculcation of discipline by daily habit, forethought in devising means to meet any emergency that might arise in action, and stern punishment for neglect of duty. For a thoroughly trained man will be bold and confident in action; one has no hesitation in undertaking work

Leading soldiers of the Middle Ages carried him in their saddle pockets.

with which one is perfectly familiar. A small trained force is the best guarantee of success; a raw undisciplined host is foredoomed to destruction.

Vegetius divides his treatise into five books. The first of these treats of recruitment and elementary instruction.

For soldiers Vegetius prefers men from temperate climates, countrymen rather than city dwellers, and the hardier craftsmen such as carpenters or blacksmiths rather than confectioners or weavers. He attaches little importance to stature, but insists upon health, strength and agility. The new recruit served a probationary period until his aptitude had been tested.

The physical training course included marching, running, leaping and swimming. The recruit was expected to march twenty miles a day, under a load of sixty pounds, which was still not as heavy as the full legionary equipment. Cavalry recruits, fully accoutered, were trained to mount a wooden horse by vaulting from either side. This was an important and practical exercise, for stirrups had yet to be invented.

Great pains were taken with instruction in the use of arms. Those issued to recruits were not service weapons, but dummies, and were made heavier than the regulation patterns, for the same reason that a baseball player swings two bats before he steps up to the plate. The swordsmen were taught to thrust rather than cut, for the same reasons explained in our modern cavalry drill regulations—the thrust is much more likely to inflict a dangerous wound, and in delivering it one's own body is not exposed. Posts, set up on the drill ground, served as targets for sword and javelin practice, in which both accuracy and power were demanded. Similar instruction was given in the use of the bow and the sling. Qualified men, selected as instructors in these exercises, drew additional pay, as do our marksmen and gunners today. These came to constitute a separate grade in the military hierarchy. For several centuries they held the title *campi doctor*, which means field master or master at arms. There may well be a connection between this title and *maestro de campo* used for a regimental commander in Sixteenth Century Spain.

When individual instruction had progressed up to a certain point, the elements of collective instruction were taken up, especially marching. A fully instructed recruit was expected to be ready to join in the practice marches of his cohort, which were made every ten days. These marches, which averaged twenty miles a day, were made with full field kit, over varied ground, and invariably included incidental exercises in minor tactics.

The recruit was also expected to know how to dig, for

Vegetius held to the old Roman plan of entrenching every camp. The camp was generally rectangular but the trace of the wall was determined by the terrain. The capacity of the Roman for spade work is indicated by the dimensions of the fortification. A wall three feet high, with a ditch nine feet wide and seven feet deep, is spoken of as a light entrenchment. For really serious entrenching Vegetius prescribes a ditch twelve feet wide by nine deep, and a wall four feet high, revetted with hurdles and crowned with a palisade. The wall was not intended to serve as a breastwork, but as the *terreplein*, upon which the defenders stood. The work was carefully organized. The cavalry formed an outpost, backed up by half the infantry; while the other half of the infantry dug. Reliefs were by small units, under their own officers. Upon relief the officers in immediate command measured the work completed to fix responsibility.

Book I ends with this pithy remark:

Military instruction should always be given to selected young men; for the state will find it less expensive to train its own citizens in arms, than to purchase foreign assistance.

Not a bad motto for our Reserve Officers' Training Corps.

Book II deals with organization and interior economy. It describes the two great classes of Roman troops—the legions, or regulars, and the auxiliaries, or provincial contingents. Vegetius points out how much help the auxiliaries can be to the legions, but at the same time recognizes a human trait which is not unfamiliar to us. When one class of troops has stricter discipline and heavier duty than another, recruits avoid the first and seek the second. He laments the decay of the legionary forces, as a result of the failure to make service in them attractive. He remarks that good troops cost no more than bad, and appeals to the emperor to put an end to abuses and restore the ancient Roman discipline.

Vegetius attributes much of the superiority of the legion to its well-rounded completeness, which he credits to divine inspiration. This unit was in all truth beautifully proportioned. It was small enough to be cohesive and to foster a healthy organization spirit, and yet large enough and strong enough to undertake a major mission. At this time the first of its ten cohorts was approximately a thousand men strong while the others were only half that strength. With its light infantry and cavalry, the legion of this period totaled somewhere between six and seven thousand men.

The old command system was still in existence. The military tribunes corresponded roughly to our field officers and the centurions to our company officers. There were also numerous grades of minor officers that might be compared to our noncoms. However, there was one important difference in the command set-up: the institution foreshadowed in Caesar's armies had now become fully established—each legion had a single permanent commander, the legionary prefect. The *legati*, used by Caesar for such commands, had been moved up a grade, and now commanded independent detached forces, or

groups of legions. There was also the prefect of the camp who was responsible for establishing and fortifying the camp, for supply, for hospital service and for transportation.

The legion had its own force of artificers of every trade—workers in wood and metal, masons, painters, and unskilled laborers. They manned mobile repair shops for arms and equipment. There was also a corps of sappers and miners. All these special troops came under the command of a staff officer called the prefect of artificers. The legionary trains carried not only regular supplies, but also artillery—portable catapults and *ballistæ*—heavy for the legion and light for the cohorts, just as we now provide light machine guns for our infantry battalions and heavier accompanying weapons for the regiment.

In this second book Vegetius also gives a brief sketch of the paper work of the legion—pay accounts, duty rosters, records of furloughs, deposits of pay, maintenance and administration of a legionary relief fund. He describes the system of promotion of centurions—seniority in the legion at large, not in each cohort separately. Additional instructions follow on collective training; all subjects mentioned for recruits are continued in the troops units—newly incorporated recruits attending two drills a day, old soldiers one.

We meet the real Field Service Regulations in Book III. It begins by discussing the desirable strength of an army. By reference to the examples of Xerxes, Darius, and Mithradates, Vegetius emphasizes the point that quantity should not be sought at the expense of quality. He strongly favors a small trained force over a larger one loosely organized and ill disciplined. The latter, he states, consumes supplies out of all proportion to the service it can render. Today, after a century's reign of the "nation in arms" theory, our military thought on this point seems to be leading back to Vegetius.

Sanitary regulations also receive attention. Rules are laid down for the selection of a healthy camp site. In hot weather marches should begin early, so that they may be terminated before the hottest part of the day. Important, too, is an ample and pure water supply, prompt medical attention and proper diet for the sick, and the frequent moving of camps.

The discussion of supply emphasizes the importance of careful preliminary estimates, proper apportionment of requisitions to the provinces that are to fill them, and logical organization of *dépôts*. The subsistence stores named are beef on the hoof, grain, wine, vinegar and salt. Other supplies such as fuel, forage, arms and ammunition are also mentioned.

Vegetius speaks of discipline and discusses the effect of training methods upon it. Since idle men become discontented he believes that troops should be kept fully occupied with drills, physical training and maneuvers. He observes that labor may be demanded freely, so long as it is evident that it has a definite military purpose. His idea of discipline is summed up in this statement:

He is the better leader, whose command is well-behaved through hard work and the habit of order, rather than he who must force his men to duty through fear of punishment.

This sagacious Roman also had something to say on marks of identification and methods of visual and sound signalling, and much on marching and the service of security and information. He stresses the importance of constant reconnaissance, and prescribes that reconnaissance reports should be accompanied by sketches. Other points deemed important are the procurement and handling of guides; the formation of march columns, with advance and flank guards and appropriate disposition of trains; careful calculation of space and time; and close supervision of march discipline by officers. A special section is devoted to river crossings—the reconnaissance of fords and the technique of using them; the construction of pontoon bridges; and the establishment of bridge-heads. All of this has a distinctly modern flavor.

For planning a campaign and selecting ground for battle, Vegetius gives a form for making an estimate of the situation. It is similar to the one we use in our military schools today. It includes a study of the mission and of the strength and composition of the opposing forces. It lays special stress upon an estimate of the character of the enemy's leader. The estimate also takes into account the supply situation in both armies. Finally it prescribes a study of the terrain with a view to exploiting its favorable features and minimizing its disadvantages.

The manual goes into detail on the order of battle of large units. The infantry is habitually placed in the center, well organized in depth; heavy cavalry covers its flanks, and the light cavalry operates independently farther out. The importance of reserves is particularly emphasized. In his discussion of victory, Vegetius refers again to the time-honored maxim which warns against driving a beaten enemy to desperation; and he quotes Virgil's line, that the only hope of the vanquished is in despair. Discussing defeat, he makes a perfectly sound analysis of the process of breaking off an engagement, forming a march column for retreat, and organizing a rear guard.

The work is generously provided with military maxims. Among them are:

Who wishes peace, let him prepare for war.

Who hopes for victory, let him be diligent in military training.

No one dares to provoke a power which is known to be superior in war.

A general must not attempt to change his plan after the battle has begun; confusion always results, offering opportunity to the enemy.

If a spy is suspected, order every man to his tent and the spy will be detected. (Napoleon used this device on the

island of Lobau in the Wagram campaign.)

Seek advice from many, but keep your decision to yourself. (One thinks at once of Stonewall Jackson, who carried this virtue almost to a vice.)

Book IV treats of fortresses. The various offensive and defensive devices mentioned by earlier writers are discussed again, but little is added that is new. Among the engineering expedients is one which has only recently disappeared from military textbooks—determining the height of a wall by measuring the length of its shadow, and comparing it with the shadow of a pole of known height.

Vegetius gives much space to the problems of supply of fortified places, especially the supply of water, salt meats, fruits, vegetables, grain, wine, salt, and vinegar; also poultry, for hospital diet. He insists upon the rigid rationing of all stores, both for the military garrison and for the civil inhabitants. Among ordnance stores, he mentions sulphur, oil and other incendiary materials; iron and coal; selected wood for manufacture of spears and arrows; smooth, round stones, sorted in sizes for use as projectiles for slings and for artillery; sinews and hair for the driving ropes of artillery weapons.

In closing, he again emphasizes the importance of a good service of security and information. He favors the use of watchdogs, and retells the tale of the geese that saved Rome from capture by the Gauls.

The subject of Book V is naval warfare. It is known that Vegetius is more at home ashore than afloat, and he admits as much. Still, he touches on the subject, since most of the sea fighting was done by soldiers.

In marked contrast to most military writings, this one never fell into obscurity. This is perhaps because it is the only comprehensive ancient treatise on the art of war that was written in Latin. Others there were, but they came later, when Latin had ceased to be the official language of the eastern empire. These were written in Greek, and therefore not as widely known in western Europe. Vegetius' famous work was always widely read; it was copied over and over in manuscripts, and translated into all modern languages as soon as these languages had reached a stage of development making translation worth while. The leading soldiers of the Middle Ages carried him in their saddle pockets. The earliest printers seized upon him as one of their first texts; half a dozen printed editions appeared before the end of the Fifteenth Century.

The innovations in warfare incident to the use of gunpowder outmoded some, but not all, of Vegetius' text. Distinguished soldiers of the modern era have studied it with profit. Indeed, many passages from this military classic seem destined to transcend both time and invention in their application.

NOTE: This article somewhat expanded and altered will appear as a chapter in Colonel Spaulding's book *Pen and Sword in Greece and Rome* which the Princeton University Press will bring out some time during the coming spring.—EDITOR.

THE EDITOR'S SADDLE

Our Frontispiece

Ugly, one of our outstanding Olympic mounts, is given the place of honor in this number of *The CAVALRY JOURNAL*. He was a member of our Prize of Nations Team in the 1936 Olympic Games at Berlin. This event was a difficult test as evidenced by the fact that out of eighteen nations entering the contest, eleven were eliminated, allowing seven to finish three horses each. *Ugly*, ridden by Captain Cornelius C. Jadwin, was one of the few horses to complete the course.

Ugly is a bay gelding, fifteen and three-quarters hands high, 17 years old. His breeding is unknown. He was purchased by the Government, in 1919, from C. F. Henry at Kansas City, Missouri, for \$180.00. He was issued to the 13th Cavalry in which regiment he was for years considered an outlaw. He is a courageous and honest jumper.

Horse Stories

WE need horse stories. Read *Cayuse* and see how interesting a horse story can be. If you will take time to think the matter over, you will probably recall that you have had at least one experience with a horse that is just as interesting. The only difference between you and Captain McGuire is: Captain McGuire was glad to take the time to relate his experience with this interesting mount, whereas you have found it impossible to spare the time up to the present moment.

Cavalrymen like horse stories. Most of our readers are cavalrymen. All of them are horse lovers. Help us give them what they like.

From Distant Lands

FROM different directions the mails have brought us two letters, each indicating a deep appreciation for the *CAVALRY JOURNAL*. The first is from Lieutenant Colonel George S. Patton, Jr., (Cavalry) G.S.C., now Assistant Chief of Staff, G-2, of the Hawaiian Department, who says:

Accept my congratulations on the very fine September-October, 1936, issue of the *CAVALRY JOURNAL*. I found the contents varied, interesting and instructive, and wish to take this occasion to thank you for the pleasure I have received in reading it.

From Guatemala, Central America, we have received the following complimentary comments by Lieutenant Colonel John F. Davis, Cavalry, now holding the grade of brigadier general of the Guatemalan Army in the capacity of Director of the Escuela Politecnica:

May I take advantage of this opportunity to felicitate you on the high standard attained by the *CAVALRY JOURNAL*. I never thought that I would look forward to receiving the *JOURNAL*, but I do now.

Membership Status

THE year 1936 came to a glorious close so far as the United States Cavalry Association is concerned. The 24th Cavalry Division, our only National Guard cavalry division, came through with the anticipated one hundred per cent. Very near the end of the year Major John O. Lawrence, Instructor for the 115th Cavalry, Wyoming National Guard, forwarded the memberships of the other fifty per cent of that regiment. The letter reached us on December 31st, and not only gave the 115th Cavalry a full enrollment but also placed the entire 24th Cavalry Division in the one hundred per cent column. We deeply appreciate the splendid efforts of Major Lawrence in completing this enrollment.

Every cavalry officer of the division now receives the *CAVALRY JOURNAL* regularly. But our most enthusiastic supporter in the division is, as before, Major General William K. Herndon, its commander, who has for some time urged every officer under his command to join the Association and read the *JOURNAL*.

Major John T. Hood, Instructor of the 116th Cavalry, Idaho National Guard, has again registered a one hundred per cent membership for that regiment. In the fall of 1935 he first undertook the task of inducing the officers of the 116th to join the Association. He met with such success that he decided to try it again. Last fall he started his renewal campaign, and has now sent us the paid membership of every officer of the regiment, including the chaplain and the veterinarian. Major Hood is a firm believer in the *CAVALRY JOURNAL* and doesn't care who knows it.

We are also indebted to Colonel George M. Russell, Cavalry, Chief of Staff, and Major James S. Rodwell, Adjutant General, of the 61st Cavalry Division, for the new memberships of twenty officers of that division.

Sergeant William A. Shoemaker, of Headquarters Troop, 54th Cavalry Brigade, has just thrilled us with fifteen new members from the personnel of that troop.

As shown by the annual report of the Association, this continued increase in members has brought our total enrollment to 2,607, a gain of 1,043 since May, 1935.

A Real Artist

CAYUSE, by Captain James A. McGuire, appearing in this number of the *CAVALRY JOURNAL*, is illustrated by 2d Lieutenant Donald L. Dickson, United States Marine Corps Reserve.

When Lieutenant Dickson, who lives in Worcester, Massachusetts, illustrated "The Tank Ju-Ju," he sketched Captain McGuire of Tucson, Arizona, as he thought he should be, the text of the story furnishing the only clues.

The likeness was so striking that Captain McGuire's relatives and close friends complimented him on the illustration which they thought had been made from life. Thus had Artist Dickson made a splendid sketch of Author McGuire without having seen his subject in person or in photo.

In illustrating "Cayuse," he has again followed the same line of reasoning. May his imagination be as successful this time.

That Cavalry Esprit

THE 121st Cavalry, New York National Guard, lead the average percentage of attendance list in that state for the month of November with an attendance of 95.23 per cent.

The 103d Cavalry, Pennsylvania National Guard, headed a similar list in its state, for November, with an attendance of 91.20 per cent.

It Flatters the Editor

NOTHING flatters an editor more than to learn that one of his subscribers realizes that his magazine has failed to arrive at the proper time and place, and that this subscriber wants the magazine so badly that he will write a letter about it. It is distressing to learn that the magazine has gone astray, but it is so encouraging to know that the subscriber really wants it.

Occasionally we receive a letter from a member to the effect that, due to change of address, he has not received the last number of the CAVALRY JOURNAL. We are so flattered at this request that we immediately mail him another copy and usually write him a letter of thanks for having missed the JOURNAL.

The maintenance of an up-to-date address list is a constant worry to our entire office force. We want you to receive the JOURNAL promptly, but this can only be possible when we have your proper address.

Blindness from Periodic Ophthalmia Increasing

(The Horse and Mule Association of America)

YOU may be the next to have a good horse go blind, for periodic ophthalmia, while not general, is widespread. It has been known and described for more than 2,000 years, but has baffled veterinarians and research investigators in a dozen or more nations, and its cause is still unknown.

Because it affects all classes of horses and mules, and appears to be increasing, the Horse and Mule Association of America has undertaken a nationwide study of the disease, with a view of gathering facts about where it occurs and what the conditions are where it appears, which can serve as the basis for some practical work along preventive lines.

The Association had Dr. C. J. Marshall of the Veterinary School of the University of Pennsylvania summarize all known research and veterinary knowledge down to November 1, 1936; and arranged with Colonel Robert J. Foster, Chief of the Veterinary Corps, U. S. Army, to prepare a statistical study of the occurrence of the disease among all U. S. Army horses for the past 13 years, which has been completed. The Association has also received

reports from state veterinarians, and agricultural colleges, from every state in the union, as to the occurrence of this disease in their states.

All this has been done, but it is only the beginning. The urgent need is for thousands of reports from men who have had the disease among their horses, or who know of animals in their localities that are, or that have been, affected.

Mass data is needed, to permit the Association to map the areas where the disease occurs most numerous and frequently. A nutritional deficiency may be the cause, and area studies will help determine whether this is true.

Names and addresses of correspondents, will not be disclosed to any one, as Wayne Dinsmore, Secretary of the Association, realizes that full information will not be forthcoming except under pledge of secrecy as to identities. He requests that all possible information be sent to him at once, at 407 South Dearborn Street, Chicago, Illinois.



Strategic Reconnaissance in War of the Future*

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RECONNAISSANCE, both strategic and tactical, is conducted in the air and on the ground. Strategic reconnaissance furnishes the High Command the basis for its strategic decisions; tactical reconnaissance, on the other hand, supplies the data for the tactical leading of troops and their employment. As soon as contact with the enemy has been established, combat reconnaissance begins. By means of the latter, the information needed for planning and fighting the action is obtained. All arms engage in reconnaissance.

The purpose of reconnaissance is to observe and report, that is to say, to see more than the enemy does and to prevent the enemy from observing on his part. This necessitates gaining superiority in the reconnaissance area, both on the ground and in the air. Hence, the means of reconnaissance must possess speed as well as fighting power. They must be capable of aggressive action against hostile reconnaissance units; and, so far as mission and situation permit, they must be able—down to the last reconnaissance patrol to dominate the enemy.

The several cavalry corps which alone engaged in strategic ground reconnaissance during the World War possessed the requisite fighting power to apply these principles and knew how to furnish their reconnaissance detachments and patrols the tactical support the latter needed for the execution of their missions. Since the World War, however, both aviation and motorization have supplemented cavalry reconnaissance. This new condition has raised the question of creating a suitable organization for highly mobile units intended to operate between friend and foe in No-Man's-Land. It would be unthinkable to dispatch small scouting parties, either in the air or on the ground, hundreds of miles into enemy territory and expect them to achieve tangible results, without backing them up with highly mobile troops equaling in form and strength the cavalry corps employed in the World War. For reconnaissance detachments and patrols without such direct support would be needlessly sacrificed or forced to return without accomplishing anything. The maneuvers of the great military powers enjoying complete freedom as to armament have been consistently devoted, during recent years, to bringing about a solution of this problem.

In the French maneuvers of 1933 attempts were made to replace the cavalry corps by a motorized (truck-carried) body of troops and impart to the latter tactical mobility by the assignment of a small mechanized unit. The prerequisite for the success of such an experiment

Success will only come if all reconnaissance agencies (air, motorized, horsed) co-operate under the centralized control of one directing mind.

is an unlimited fuel supply and an excellent road-net, such as is had in eastern France.

In the French fall maneuvers of 1932 the mechanized brigade was combined with two horsed brigades of a cavalry division. The rate of progress of the cavalry in this case proved too slow, however, to allow the initial successes of the mechanized brigade to be exploited strategically.

Not until the maneuvers of 1933 was it possible to conduct the operations of highly mobile units on strategic lines in a manner similar to that in which the German cavalry corps were employed at the beginning of the World War. Thus France committed herself to a one-sided employment of the motor for strategic reconnaissance, while conceding a right of existence to the horse only within the organic structure of dismounted units.

In Italy, however, the situation is quite different. Having on her frontiers no suitable terrain for a strategic employment of highly mobile units, she is interested only in relieving threatened points by speedily transporting thither, over good strategic roads, troops and matériel covered by a screen of Alpine troops. Hence, for the time being, Italy has no need for mechanized units to be employed for strategic purposes but may confine herself to the use of strategic groups transported in trucks. True, experiments with modern cavalry units have also been made in Italy, but always with the mental approach that the number of the existing twelve cavalry regiments must be reduced still further. The trials need not be taken seriously, therefore; and we may eliminate Italy from the list of military powers possessing a cavalry arm fit for employment on strategic missions.

Still different conditions prevail in the British colonial commonwealth, in Russia and along Germany's eastern frontier. In these countries there exists no arms industry capable of meeting such immense demands as would be commensurate with their population and area. To import motor equipment from other industrial states, such as the United States and the British mother country, would be a difficult task; besides, shipments would be

*Translated by F. W. Merten from *Die Operative Aufklärung im Zukunftskriege*, "Militär-Wochenblatt," Berlin.

slow in transit and, from a financial point of view, not remunerative. Owing to poor road conditions, only the very best—hence the most expensive—material would prove suitable; moreover, the financial trustworthiness of these countries would offer the major industrial nations but slight inducement for making deliveries on a large scale. Generally speaking, then, these countries will have to depend on the motor equipment manufactured at home, while continuing to concede the leading rôle to animal-drawn transportation, which is inexpensive both as to original outlay and maintenance. Besides, it does not have to be imported like motor equipment, at least part of which would have to be paid for with foreign exchange. Obviously also in these countries the motor will make its appearance primarily in aviation both as a means of transportation and combat, while its employment on the ground will be confined to the execution of special missions during certain critical periods. The average rate of progress of all strategic action within the reconnaissance zones of these areas will of necessity adapt itself to the speed of the horse and not to that of the motor, as will be the case in western theatres of operation.

It is essential to appreciate these conditions in order to arrive at a decision as to what the composition of highly mobile units should be and thus to determine the principles that ought to govern the employment of their various reconnaissance means. Strategically speaking, the problem then reduces itself to creating organizations that are unmixed; that is to say, either to transport the division as the lowest strategic unit by motor or to move it on horseback (basing ourselves on experiences of the French maneuvers in 1932). However, this does not mean that attaching a mechanized division to a cavalry corps is to be forbidden. Even during the World War, the assignment of entire cavalry corps to still larger units could not be condemned on principle; on the contrary, it often corresponded in every way to the situation then existing.

Along Germany's eastern frontier, aviation and cavalry units as well as mechanized units enter into consideration for strategic reconnaissance missions, such as confronted the various cavalry corps on the Western Front in 1914. At the beginning of the World War in 1914, air reconnaissance was conducted without being directly coördinated with ground reconnaissance. The latter rested exclusively in the hands of four cavalry corps which covered the entire combat zone. The possibility of combining the two means of reconnaissance was never considered. It goes without saying that in the next war the motor on the ground will join the two as a third independent factor, thus subjecting to another crucial test coördination of all reconnaissance means, which alone will insure success.

Air reconnaissance operates with a velocity of from 100 to 200 miles per hour; mechanized ground reconnaissance can attain a speed up to 40 miles per hour; while cavalry reconnaissance will not exceed six miles per hour. "Render unto the motor what is the motor's; and render unto the

horse what is the horse's," is easily said. Yet the air forces will try to end the war before the motorized elements on the ground have reached the combat zone; and the motorized elements, in turn, will attempt to get in rear of the enemy before the cavalry has even started. Their foremost representatives are opposed to any sort of mutual dependency and wish to be subordinated only to the commander-in-chief of all the forces. These men fail to appreciate, however, that final victory is possible only if all arms coöperate; that in the World War it was the unique position occupied by the German Navy which caused the latter—forced as it was frequently to stand by idly while the gigantic struggle was in progress—to delay the victorious outcome for a time and finally to render it impossible altogether. In the last analysis, the auxiliary arms—in the air, afloat and on the ground—will be able to display their full effectiveness only if they are made available for, and committed to, the decisive action by one directing mind. It is dangerous to concede to them complete liberty of action and thus allow them to operate with only their own superior advantage in view. For, in one way or another, they will either spend themselves prematurely or remain idle, or again, be unable, in the battle for the decision, to lend their attack that strength which the commander-in-chief expects. This was the experience of the two cavalry corps of the right wing on the Western Front in 1914. Receiving their orders at one time from the High Command, at another from the commanders of the two armies of the right wing, and again from their own commanders (Generals von der Marwitz and von Richthofen), the two cavalry corps would take the initiative now in one direction, now in another, just as the whim of fate would have it.

In this respect motorization will create even greater confusion, unless a determined commander requires it to conform to the pace of the whole operation. This determination must needs express itself and prevail, beginning with the very first concentration for battle.

Discussion is going on these days about small, but highly trained and equipped, standing armies and militias of the nation in arms. Mention is made of a body of frontier guards, a so-called *armée de couverture*, and a "shock army" which is to bring about the decision. Already in time of peace are defensive zones organized by burrowing through the ground for a depth of 60 miles. Gas-proof zones are being created by tunneling extensive areas in rear of defiles. In short, the world today consists primarily of fortress zones; and no one knows how long the sally-ports will remain closed. Once these gates open, troops charged with the mission of strategic reconnaissance, the eyes and ears of the Army, will be the first to pass through them. But how will they be distributed with respect to the sally-ports?

As mentioned before, the German disposition for the attack on the Western Front in 1914 provided for four strong reconnaissance bodies uniformly distributed over the entire front. The organic structure of the individual armies, on the other hand, included no means for stra-

regic reconnaissance. With the exception of a few instances of air reconnaissance, these armies had to depend on the tactical reconnaissance executed by the cavalry regiment of their infantry divisions. The logical result was that the various cavalry corps were frequently attached to the armies.

More so than in the case of any other military measure, it is vitally important to consider, at the outset of the reconnaissance operations, the feasibility of later centering these activities on one and the same general object. Such a center of gravity usually will be sought on an exposed flank. Yet the German concentration plan of 1914 dealing with the Western Front utterly failed to consider this viewpoint. There were several reasons for this. While, on the one hand, it was deemed impossible to guarantee the reinforcement of the extreme right by means of large bodies of cavalry (from five to six divisions), the railroad-net, on the other hand, was in no position to handle the movement of such large troop units within the short period of time allotted to the movement up to the completion of the concentration. It is difficult to judge whether or not these reasons actually obtained. It is, however, an actual fact that these considerations caused General v. Moltke—on the occasion of his last great general staff journey in Alsace, prior to the World War—to adhere to that concentration plan which provided for a uniform distribution of the several cavalry corps over the entire front. That these reasons led to defeat and that they constituted one of the factors that caused the plan of encircling the French armies to miscarry, even the non-professional understands.

All who participated in the World War know that in 1914 it was possible, in the western theatre of operations, to live off the country, and the German forces generally did live off the country whenever the supply situation rendered it necessary. When the cavalry corps would make requests for supplies, the armies never hesitated to wire back: "Live off the country!" Then, too, everybody knows that, after crossing the Meuse, it took the cavalry ten days to concentrate in front of the right wing for its first major bound. During these ten days, three additional cavalry divisions could have detrained along the Rhine and by marching could have reached the right wing then located in the area west of the Meuse. In short, with a little determination this obstacle could have been overcome. Yet the real difficulty arose from the fact that there was no one who had mastered the theory of leading large bodies of cavalry or who would have ventured to give the theory life by translating it into practice. The first man to risk it was Budenny, the Russian cavalry general who had risen from the ranks and who was not spoiled by overeducation. His success was bewildering. Will he have any successors, and will anyone follow his example? I mean a modern emulator who knows how to concentrate all highly mobile forces rapidly; gain ground by dint of their superior rate of speed; and, while the infantry masses are fighting for the decision, will have reached the enemy's rear both in the air

and on the ground. Let us hope that some day Germany will have such a general. But even today we must see to it that the spiritual foundation is laid which will produce the means enabling him to act his part. At present this will only be possible if, on the ground at least, all highly mobile means of an Army are placed under the control of one leader who lays down the guiding principle governing their employment and coöperation. If such a leader can be found in time of peace, a center of gravity for the activities of the highly mobile forces under his command will soon be established in the plan of concentration. In that case the various organizations of highly mobile units will make their appearance promptly at those points of a front where they can fully assert their respective characteristics.

A zone covered by a group of armies requires strategic reconnaissance in front of each individual army, as well as on the exposed flanks which will sooner or later develop. At the beginning of an operation the center of gravity of strategic reconnaissance must needs lie in advance of the front, while in critical moments it will shift abruptly to an exposed flank. For this reason, the greater part of the cavalry, possessing as it does a comparatively low speed, must from the very beginning be concentrated at those points where, from the nature of the plan of operations, exposed flanks may be expected.

On the other hand, motorized and mechanized elements, owing to their inherent speed, can be shifted about far more readily; hence, they will be charged with the reconnaissance in advance of the front during the initial disposition of the field forces. The enemy situation will be the determining factor as to whether this ground reconnaissance will have any chance of success as strategic reconnaissance, or whether it will soon come to a standstill and dissolve into separate tactical undertakings devoid of strategic results.

The French Army possesses for reconnaissance missions in advance of the armies the so-called "corps reconnaissance detachments," no distinction being made between strategic and tactical reconnaissance. These corps reconnaissance detachments are composed of motorized units, some of which have to leave their vehicles in order to go into action, while others can fire from them. For tactical purposes, these detachments are employed so as to establish a covering screen between 30 and 50 miles ahead of their advancing corps, with reconnaissance patrols operating some distance beyond this screen. As soon as the corps has come within close proximity of the screen, the corps reconnaissance detachment makes another forward bound. This method operates with the greatest possible factor of safety but presupposes riflemen carried on motor vehicles that are more or less suitable for cross-country travel.

The necessity for motorized reconnaissance in advance of the front, even though cavalry may be employed in the same zone, is stressed by all modern armies. The only moot question is that of subordination, composition and principles applying to the tactical employment of

such reconnaissance units. The answer to this question may be summed up by stating that it will be the enemy situation, the means available and the terrain, here as well as in all other military problems, which will guide the steps of the various nations.

Wherever there are extended frontiers, poor roads and an inadequate number of up-to-date motorized vehicles, as is the case on the eastern boundary of Germany, it is advisable to create, for purposes of reconnaissance exceeding tactical scope, small mechanized units composed of one single arm and mounted on cross-country cars. These units should be attached to a major organization, as for instance an army or corps. Captured ground must be held by truck-carried infantry; it will not do, however, to make these riflemen an organic part of the reconnaissance unit; organically, they should remain part of the army. The reconnaissance unit must be "small but select" in the true sense of the word, and seek to excel in celerity and mobility. For this reason, it should never be subjected to long marches. Ability suddenly to appear on the scene of action and just as suddenly to disappear is essential. If the situation demands that a certain zone be held, the power of resistance—this being the era of the motor—must be kept alive from the depth of the army zone. Moreover, surprise attacks on the part of aviation units may contribute towards gaining time pending the arrival of the infantry. On no account, however, should the mobility of a mechanized reconnaissance force be impaired by assigning to it less mobile elements for dismounted action.

The tactical reconnaissance missions of an army are executed by the reconnaissance detachments of the division, its lowest strategic unit. These reconnaissance detachments must include cavalry and all kinds of motor vehicles equipped for military purposes. Here the horseman observes and fights shoulder to shoulder with the motorist. However, neither men nor matériel of the regular (active) army should enter into consideration for these purposes; for they must take position as a solid mass at the center of gravity of the strategic reconnaissance.

In August, 1914, the German plan of operations on the Western Front provided for such a center of gravity on the right wing of the armies. Yet it will not always be an easy matter to determine in advance this center of gravity; hence, it may become necessary somewhat to delay reconnaissance at the center of gravity. Motorization will greatly facilitate this, without conjuring up the danger of the reconnaissance elements being too late or exerting themselves prematurely. Once the center of gravity of reconnaissance for a certain operation has been fixed, the employment of major cavalry units, as well as motorized and mechanized forces, must likewise be determined. The proportion in which these elements are to be used depends on the theatre of operations and the strategic units available; a hard and fast rule cannot be applied. The fundamental principle is and must remain that strategic ground reconnaissance in future will be

feasible only with the aid of motorization; it is the motor, then, that will furnish the "eyes" and serve as support in these circumstances. As stated before, there is no set rule, but there is a minimum requirement that must govern reconnaissance elements in the matter of armament.

Let us consider first the question of support. As part of the strategic center of gravity it may consist either of motorized divisions, such as were used in France during the maneuvers of 1933; or of a mixed force containing both army cavalry units and motorized divisions; that is to say, a non-tactical force, such as was organized for the French maneuvers of 1932; or again of plain cavalry divisions, with motorized reconnaissance elements attached, to be used exclusively for their own tactical purposes.

The countries of Western Europe, with their highly cultivated areas, may rely more and more on strategic reconnaissance executed from a center of gravity by motorized units of at least division strength; this, of course, presupposes an adequate supply of motor fuel. The advantage of using motorized forces for this purpose consists in their inherent mobility which enables them—even in this age of air reconnaissance—to gain ground by surprise effect and hold it. Provided a first-class road-net is available, these motorized units will be sufficiently mobile, even in action, to be able to dispense with the support of cavalry in executing tactical missions. The only objection to motorized units is that they require a good deal of road space and cannot leave the roads when attacked from the air. Hence, they must be strongly armed in order to be able to defend themselves against hostile attacks, both from the air and on the ground.

France employed for this purpose a mechanized unit of brigade strength. Carried in cross-country vehicles, this mechanized force was charged with executing the tactical reconnaissance for a motorized division which had been ordered on a strategic mission. In accordance with French principles, the reconnaissance force executed its task by systematically advancing by bounds, the object being to gain the enemy's flank. While in movement, the mechanized brigade alone would engage the enemy; whereas the motorized division, and of it only the infantry, would go into action only after the situation had cleared—gaining, on the other hand, almost 200 miles of enemy territory in three days. Although the mechanized brigade constituted at least one-third of the combat strength of the division, it remains doubtful, nevertheless, whether such a brigade would be strong enough to provide cover for a division, as well as to engage in tactical and strategic reconnaissance (especially on an exposed flank). It would seem advantageous to have available an independent unit which may be distributed over a wide front depending upon the requirements of the situation, rather than to draw such elements, as in the case of the cavalry corps, from the combat units of the divisions, with the result that the latter would no longer possess the fighting power required of them at the critical moment.

In the French maneuvers the mechanized brigade was

composed of: two motorcycle squadrons; two armored car squadrons; one regiment of *dragons portés*; one battalion of light tanks; one battalion of field artillery (75-mm.). This organization, however, must be regarded merely as an experiment, which by no means has been concluded. The assignment of a regiment of *dragons portés*, conveyed in cross-country cars, has the advantage that these riflemen may immediately occupy any ground that has been gained. On the other hand, there is the disadvantage that the brigade as a whole might become too cumbersome to be led according to cavalry tactics, thus reducing to a minimum the possibility of obtaining reconnaissance results by surprise effect. For reconnaissance purposes, the two armored car squadrons and the battalion of light tanks are well adapted, while the two motorcycle squadrons must suffice as a support. Should there be a necessity for a stronger support, it must and can be supplied very promptly by the motorized division.

Whether motorized divisions with mechanized brigades attached will be able to conduct strategic reconnaissance in a manner similar to that of the cavalry corps during the World War, can be definitely decided only by actual experience in another war. For the present, and indisputably so on Germany's eastern frontier, it probably is still best to try for such purposes a combination of horsed cavalry and strictly mechanized units.

With such an organization, the longer distances will be covered by motor. The mechanized elements may either operate in advance of the corps; or they may be employed on a flank; or again they may be held in reserve until the main body of the highly mobile corps has punched that hole in the enemy's front which it generally requires in order to be able to deploy.

Within the organization of a cavalry corps, the reconnaissance mission may include such distant objectives that its motorized elements may always have an opportunity fully to assert themselves. By combining horsed and mechanized forces into a smaller unit (cavalry division), as was done in the French maneuvers of 1932, it was demonstrated that linking cavalry brigades to mechanized ones prevents either arm from taking full advantage of its special characteristics, thus rendering illusory the advantage of combining them.

In a cavalry corps, the motorized and mechanized elements must come into existence in the form of an independent third division; while in the form of corps troops, such as armored car and tank units and a reserve of motorized rifle units, they must be used for the constitution of a center of gravity. The horsed cavalry divisions should have at their disposal sufficient mechanized elements to render their respective brigades capable of conducting all tactical reconnaissance independently. In other words, it will be necessary to attach to the brigade and regiment improvised reconnaissance cars. Only then will the "intellectual mobility" of the subordinate commanders be a match to modern requirements in warfare. It is impossible, however, to gear the lower unit commanders up to that modern rate of movement which alone will lead

the cavalry arm to victory, unless they have at their disposal, within their command zone, modern reconnaissance means, however primitive they may be because of insufficient appropriations.

Moreover, so far as Germany's eastern frontier is concerned, the employment of large bodies of cavalry for strategic purposes is perfectly feasible without attaching to them any motorized or mechanized strategic unit. In that case, the number of organic reconnaissance vehicles owned by the regiments and brigades will satisfy the demands of tactical reconnaissance. Strategic reconnaissance will be conducted primarily from the air; while on the ground it will have to be carried on by the reserve of motorized corps troops. For this purpose, one must have armored cars and light tanks to serve as the "eyes" of the Army, medium tanks to furnish support, and riflemen carried on cross-country cars. All of the combat and transportation means must be organized into one tactical unit according to the needs of the situation. On the other hand, it would be a mistake to assign to the corps for this purpose a motorized reconnaissance detachment with a fixed organization. It is evident that the latter would never possess the strength and composition required for any particular situation; generally it would either be too large, or again it might be too small. The cavalry corps must be in a position to draw on its motorized reserves for such forces as the situation demands. The objection that difficulties, due to lack of experience, might be encountered in commanding such a combination of forces will not hold true, once lower unit commanders have mastered this subject matter, just as the cavalry had to adjust itself to modern conditions.

The activities of the "eyes" of strategic reconnaissance forces are based on the principles evolved by cavalry during the major wars of the past. Yet the principle must be established anew that success will only come if all reconnaissance elements cooperate. Thus far this cooperation has never been given an actual trial, owing to the fact that coordination of all reconnaissance agencies under a centralized command has been wanting. Liaison between the various agencies operating in the air and on the ground must be effected from front to rear but should not be relayed directly from the rear to other elements following behind, while skipping several intermediate components. It is inexcusable to send the motorized elements on the ground far into enemy territory without keeping them constantly posted on the results of air reconnaissance. Likewise, the cavalry wave following behind must know the whereabouts of the motorized reconnaissance units and be apprised of the intelligence they have secured. In practice, this is possible only by means of direct signal communication. The art of leading highly mobile units will include the assurance of this signal communication by timely regulating all movements and by a mutual assignment of liaison detachments. No doubt, the limited number of wave-lengths available will render it difficult to maintain radio communication; on the other hand, by expert arrangement direct communica-

tion from person to person can very well be established even from airplanes—of which fact I convinced myself in Italy during the maneuvers held in 1932.

For use in the leading reconnaissance wave, armies that are not subject to restriction in armaments give preference to armored cars equipped with 37-mm. and 47-mm. machine guns, light machine guns, or machine rifles. Above all, these cars must be speedy, heavily armored, and, to a certain extent, capable of traveling cross-country besides. France has met this demand by adopting the *autochenille**; while Great Britain, the United States, and Russia are developing multi-axled vehicles for this purpose. Also light vehicles provided exclusively with caterpillar tracks, of the Carden-Loyd type, have been used in Italy and, during the 1933 maneuvers, in France. Their increased capacity for cross-country movement, it is believed, will compensate for their low rate of speed on roads.

Definite principles to govern mutual cooperation in reconnaissance between these two vehicle types have as yet not been established. For, the caterpillar-track vehicle in the past has been employed primarily in battle where the main effort was to be made; whereas it has been used for reconnaissance purposes only in rare instances, owing to its numerical scarcity. And, yet, the development of the mechanized arm clearly indicates that success in strategic reconnaissance, too, will depend upon the cooperation of these two types in the leading reconnaissance wave. There was an era of highly successful cavalry patrols, when the horseman did not have to dismount for action. And so the motorized elements will likewise be successful preceding an army, if they are able at top speed to drive their machines, like steel harpoons, into the enemy front, without having to give way or dismount every time they meet resistance. Yet armored cars acting independently will be forced time and again to avoid enemy obstacles, however insignificant they may be in themselves. On the other hand, if truck-carried riflemen are resorted to for the removal of all obstacles, the rate of velocity will be reduced to that of infantry. Only light tanks will be capable without any loss of time to clear roads within the reconnaissance zone. Consequently, in future one will meet in No-Man's-Land, more and more frequently, armored cars operating in conjunction with tanks.

It is impracticable, however, to establish a dense screen of such patrol cars at a considerable distance in advance of the army. Unable thoroughly to scour an area, these elements must be given objectives which will permit of mutual radio communication both laterally and in depth; in other words, objectives with intervals of about 40 miles between them. The second echelon forms the support for the leading wave, as well as the connecting link with the tactical reconnaissance units of the main body and thus with the main body itself. The composition of this

*A vehicle equipped with a removable flexible track on the rear truck, thus constituting both a track-laying and a wheeled vehicle. Tr.

second wave has been the subject of wide controversy. In general, the second wave is composed of the major elements of motorized reconnaissance units and, therefore, possesses a considerable number of more or less mobile weapons. In my opinion, to employ the second wave, as organically constituted, exclusively as a reconnaissance reserve for the purpose of forming the center of gravity of reconnaissance and as a communication relay agency is all that can be expected of it; covering troops from the main body should be attached to it only when needed. The second wave, remaining thus elastic, will not be called upon to engage in hybrid missions but may devote all of its resources solely to observing and reporting. It is impossible to conduct reconnaissance if, in addition thereto, one has to furnish cover for the main body. This twofold mission, naturally, will influence all decisions. In times past, when reconnaissance units were devoid of a superior speed complimentary to their ordinary rate, combinations of strategic reconnaissance and security missions on the part of the leading wave could be avoided. Today, however, a strategic covering screen may be pushed forward within a very short time, thus affording the reconnaissance elements full freedom of action in executing their mission. And so the second wave—regardless of whether its nucleus consists of mechanized or motorized reconnaissance units—must likewise be composed of reconnaissance vehicles which may be reinforced by *ragons portés* for purposes of security, only if needed; moreover, it must get rid of these riflemen at the earliest possible moment.

While the leader should enjoy absolute independence in the manner of executing his reconnaissance task, he is, nevertheless, bound to certain principles which have survived the wars of the past and will find acceptance again, once hostilities begin. It will be necessary for him to exercise strict control in the conduct of all reconnaissance operations and to keep the troops well in hand. Accordingly, troops engaged in reconnaissance will move forward in a succession of waves, supplementing one another in their missions. The wave in rear must always support the one preceding it; reinforcements must come from the depth of the disposition, according to the requirements of the situation. A clear-cut separation of reconnaissance missions from security missions, each conducted by different commanders, will materially contribute to success.

The various waves must follow each other by bounds: from the motorized scout in the lead to the detrucked rifleman or dismounted rider in rear who conveys to his unit commander the information for his tactical decisions.

At a certain distance from the adversary, strategic reconnaissance merges into tactical reconnaissance. The elements farthest advanced must be mounted on motor cars and, while being kept well in hand, must closely cooperate with the succeeding units of the division, such as cavalry or infantry reconnaissance detachments or advance guards of motorized divisions.

At this stage, reconnaissance will gradually combine with security. Actually, the reconnaissance units will

then constitute merely the "eyes" of the anti-tank guns, of the mine field put down in front by motorized elements, and the antiaircraft guns—all of which will endeavor to block the main avenues of approach within a radius of from 20 to 30 miles, in order to assure the uninterrupted advance of the main body the mission of which is of a strategic nature. It is not an easy matter to visualize the zone in depth, both in the air and on the ground, such as must and can be demanded—in view of the advanced stage of motorization—for a general advance. It is particularly difficult to form a true conception, inasmuch as the requisite area will hardly ever be available in peace-time maneuvers, because of a lack of means as well as time.

And, yet, only practical experience can convey clear ideas, for the World War offers no precedent with regard to modern means of transportation. The pace of the World War was in no wise more rapid than that of any previous war. Thus it is the methods, rather than the principles, followed in the execution of all tactical operations that have been given a far wider range than they enjoyed in the past.

Whereas formerly security distances of two miles, and not in excess of nine miles, were fully adequate, security detachments now must cover an area three times as large, owing to the effective zone of action of hostile ground forces—let alone antiaircraft defense which, in view of its present stage of development, will hardly ever be able to function at the proper time.

Reconnaissance, in this respect, is practically without limits. Indeed, aircraft today is well-nigh capable of circling the globe in one single bound. During the World War, the air service fully held its own in every theatre of operations. To be sure, it made use of primitive means against a primitively equipped enemy; yet in the war to come the air service once more—and under entirely new conditions—will have to stand the crucial test. Will it survive? Yes; I believe I may answer this question in the affirmative, provided a new spirit will be able to revive old ideals; provided the will of the leader will assert itself also in reconnaissance; and provided it is the cream of the nation's manhood that will be found at the front, both in the air and on the ground, as was the case during the World War.

Cavalry ROTC Unit, New Mexico Military Institute

THE first horse show of the season was held during Homecoming. The events scheduled were: Troop Jumping Competition, Teams of Three Hunters, and Pair Jumping. All performances were of high order, the scores of all participants being 90 per cent or better, several in each class being rated 100 per cent. The experience gained by the cadets in the shows held last year was used to good advantage and resulted in a very smooth performance. An Exhibition Ride has been adapted for use on special occasions, being presented for the first time in this horse show. All members of the Second Year Basic Course, a class numbering 164, have been taught the ride. The first phase of the exhibition consists of individual and collective movements without command, each trooper carrying a lance with a New Mexico Military Institute pennant. The final phase consists of the troopers galloping through a jump which is entirely enclosed by fire.

The First Year Advanced Course Students completed their dismounted pistol firing, under Captain Aladin J. Hart's supervision, just prior to the Christmas holidays. A number of the cadets who have been practicing with the Pistol Club showed remarkable improvement in their previous scores. The entire 44 advanced students qualified, with 20 experts, 16 sharpshooters and 8 marksmen. All students were issued basic qualification badges and bars.

Rifle Marksmanship for the First Year Basic Course and First Year Advanced Course Students was completed before Christmas. This firing embraces troop competition with the award being the New Mexico Military Institute Gallery Trophy. Troop C, Cadet Captain W. H. Wadkins, won the trophy with a percentage score of 88.2, the other troop scores ranging from 86.1 to 74.4

per cent. A great deal of interest was shown during this instruction and competition especially by the First Year Basics. This was the first time some of them had fired a rifle. The interest shown was evident in the 12 highest scores for these students, ranging from 96 to 92, with three cadets tying for 1st place with a score of 96 and six cadets tying for 4th place with a score of 93. Rules for rifle competition were used to determine places. The 5 highest cadets of the First Year Basic Course and First Year Advanced Course Students in Rifle Marksmanship are eligible to compete in the James Medal Competition, an annual event held at this Institution. Captain Anderson H. Norton, U.S.A. Retired, captain of the Cavalry Rifle Team in 1927 and 1928 was in charge. Second Lieutenant R. H. Pearson, Cavalry Reserve, who has been a member of the Institute rifle team for the past four years, and Master Sergeant J. E. Cassidy, a candidate on several cavalry rifle teams, acted as assistants.

The Corps left on December 19th for their Christmas furlough and returned January 6th to their usual studies and preparation for the annual Eighth Corps Area Inspection scheduled for March 2d and 3d.

Continuing its triumphant march through the ranks of the Southwestern teams the polo team closed its 1936 season of match play without a single set-back. After annexing the Southwestern Open Championship at Fort Bliss, Texas, in the middle of October, a rather stiff schedule of games was carried out. On November 13th the Institute met the Oklahoma Military Academy on its home grounds and again on November 15th. Both games

(Continued on page 96)

Minutes of Annual Meeting of the United States Cavalry Association

THE annual meeting of The United States Cavalry Association was held at the Army and Navy Club, Washington, D. C., Monday, January 18, 1937, being called to order at 8:00 PM by the President, Major General Leon B. Kromer, Chief of Cavalry.

More than the required quorum attended, sixty-one members being present and eight hundred and seventy-five being represented by proxies.

Upon motion, duly carried, the reading of the minutes of the last meeting was dispensed with.

The following annual report of the Secretary-Treasurer-Editor was read:

ANNUAL REPORT OF THE SECRETARY-TREASURER-EDITOR
Washington, D. C., January 18, 1937.

To the Members of the United States Cavalry Association:

There is submitted herewith, as required by the Constitution and the By-Laws, the report of the Secretary-Treasurer-Editor for the year ending December 31, 1936, covering the general affairs of the Association, its financial transactions and conditions; and the conduct of The CAVALRY JOURNAL, the status of its subscriptions and other pertinent matters.

FINANCIAL STATEMENT OF THE UNITED STATES CAVALRY
ASSOCIATION FOR THE YEAR ENDING DECEMBER 31, 1936
CASH STATEMENT

	Receipts	Expenditures
Balance, January 1, 1936	\$ 3,489.28	
Membership Dues and Cavalry Journal		
Subscriptions	6,969.12	\$ 5,612.81
Book Department	7,639.17	5,984.62
Magazine Department	829.85	962.82
Saddle Department	65.00	
Salaries		994.84
Rent	390.00	900.00
Telephone	82.34	169.83
Trophies		55.00
Insurance		16.60
National Horse Show Association	1,000.00	
Cavalry Horse Show Team Fund		1,000.00
American Olympic Association Dues		50.00
Interest on Securities	188.00	
Postage, Stationery, and Incidentals	14.87	1,168.76
Balance, December 31, 1936		3,752.36
Total	\$20,667.64	\$20,667.64
ASSETS		
Bank Balance, December 31, 1936	\$ 3,752.36	
Stock on hand (Books)	344.61	
Office Equipment and Supplies	222.95	
Accounts Receivable:		
Membership Dues and Cavalry Journal		
Subscriptions		1,260.00
Book Department		1,134.44
Magazine Department		202.28
Saddle Department		162.52
Securities		6,419.28
Total		\$13,498.44
LIABILITIES		
Bills Payable:		
Book Department	\$ 391.90	
Magazine Department	74.59	
Stationery and Printing	13.20	
Telegrams63	
Engraving	5.68	
Net Value of Association December 31, 1936		13,012.44
Total		13,498.44
Net Value of Association, December 31, 1935		10,897.17
Gain in Net Value of Association during 1936		\$ 2,115.27

We, the undersigned, appointed by the President of The United States Cavalry Association, to audit the ac-

counts of the Treasurer of said Association, for the year ending December 31, 1936, do hereby certify that we have examined the books of account, vouchers, and the foregoing statement, covering said fiscal year, and that the same are correct and true to the best of our knowledge and belief.

GEORGE B. HUNTER,
Colonel, Cavalry.

JOHN C. MULLENIX,
Major, Cavalry.

ERNEST N. HARMON,
Major, (Cavalry) General Staff.

INCREASE IN NET VALUE OF THE ASSOCIATION

It will be noted that the net value of the Association is \$13,012.44, an increase of \$2,115.27 for the year. This increase was derived from two sources; namely, \$1,218.24 from the routine business transactions of the Association and \$897.03 as the result of appreciation in securities.

BOOK DEPARTMENT BUSINESS

The net profit in the Book Department during the year was \$1,861.52, a slight increase over the previous year. This profit was realized through the sale of military and historical books to Association members and CAVALRY JOURNAL subscribers.

MEMBERSHIPS AND SUBSCRIPTIONS

A steady, healthy increase in Cavalry Association memberships and CAVALRY JOURNAL subscriptions has given us the largest enrollment ever enjoyed by the Association.

During the year 517 new members were added, bringing the total enrollment to 2,607. This is a gain of 1,043 members since our campaign was inaugurated in May, 1935, or a total increase of 66.68 per cent.

The response to our drive has been gratifying. All except thirty cavalry officers of the Regular Army are now on our rolls and every Regular Army cavalry troop is a subscriber. Ten of the twenty National Guard regiments have enrolled one hundred per cent of their officers, and the other ten regiments have strong representations. In the Reserve Corps, our membership extends to every cavalry unit.

The most notable achievement accomplished during the year was the completion of the enrollment of the cavalry officers of the 24th Cavalry Division, our only National Guard cavalry division.

Our memberships and subscriptions are now classified as follows:

Regular Cavalry Officers	853
National Guard Cavalry Officers	716
Reserve Cavalry Officers	706
Other Active Members	30
Associate Members and Subscribers	302
Exchanges	2,607
Total	2,698

STATUS OF PAYMENTS

Members have, generally speaking, been prompt in the settlement of their dues. Delinquent accounts have been eliminated, placing membership dues on a current status.

THE CAVALRY JOURNAL

An increased income, which naturally accompanies a prosperous year, has enabled us to further improve the CAVALRY JOURNAL. Continuing the policy of reinvesting the greater portion of our profits in the JOURNAL, we have given our members a more voluminous and a better magazine.

A reference to the recent growth in the size of the JOURNAL is interesting. In 1934 the six numbers constituted a volume of 448 pages; in 1935 this was enlarged to 496 pages; and in the year just closed, the JOURNAL contained 560 pages. This is an average of 93 pages for each number published in 1936.

We have been following a policy of including in the columns of the CAVALRY JOURNAL a maximum of articles which are of real professional value to all cavalymen, in order that our readers might keep pace with current developments in tactics, weapons, transportation, mechanization, training and other matters of equal interest.

Our most popular features during 1936 were:

(1) The Cavalry School Digest of Information, showing the latest developments and methods in effect at the Cavalry School.

(2) Maneuver stories. During the year we published four detailed reports of cavalry maneuvers, fully illustrated with maps and sketches.

(3) The section devoted to Cavalry in the Foreign Military Press, substituted for the Foreign Military Press section on general military subjects.

(4) The Famous War Horse series, and the frontispiece devoted to Olympic Mounts.

(5) Book reviews prepared by members of the Cavalry School faculty.

(6) Publication of names, stations and assignments of all Regular Army cavalry officers.

(7) Publication of names of all National Guard cavalry officers and their official stations and assignments.

(8) The annual index.

(9) The mounted sports section.

The general result has been a JOURNAL which disseminates, primarily, instruction in the art and science of its own Arm, and, secondarily, a knowledge of general military subjects; a JOURNAL which promotes the professional improvement of its readers; a JOURNAL which fosters the spirit, the traditions and the solidarity of the cavalry.

CHAS. S. MILLER,
Captain, Cavalry,
Secretary-Treasurer-Editor.

Upon motion, duly carried, the report of the Secretary-Treasurer-Editor was accepted.

The following members were unanimously elected to the offices indicated:

President: Major General Leon B. Kromer, Chief of Cavalry.

Vice-President: Colonel Alexander M. Miller, Jr., Cavalry.

Executive Council:

Major General William K. Herndon, 24th Cavalry Division.

Brigadier General N. C. Bolton, 54th Cavalry Brigade.

Colonel Guy Kent, Cavalry.

Colonel William W. Gordon, Cavalry.

Colonel Jonathan M. Wainwright, 3d Cavalry.

Colonel Adna R. Chaffee (Cavalry), General Staff.

Colonel Vincent A. Carroll, 305th Cavalry.

Lieutenant Colonel William Nalle (Cavalry), General Staff.

Major William J. Yetton, 462d Armored Car Squadron.

General Kromer then opened the meeting for general discussion. He reminded the gathering that 1936 had been a great year for the cavalry. The 1st Cavalry Division maneuvers, the part played by the Mechanized Force in the Second Army Maneuvers, and the participation of the 6th Cavalry in the Fort Benning maneuvers had contributed in developing proper methods in the tactical employment of cavalry units, large and small. The 13th Cavalry had been added to the Mechanized Brigade at Fort Knox. A study of the new infantry division had developed a cavalry reconnaissance squadron as a part of that division. The study of proposed changes in the cavalry division would soon be under way. He referred to the ever-present problem of armament; and the question of the mobility of the horse which means taking pounds off the load of the horse whenever practicable. The development in armored vehicles shows a trend toward fewer types.

Brigadier General Hamilton S. Hawkins, Retired, stated that the success of the cavalry service and its future depends upon the loyalty and the enthusiastic support of every cavalry officer. The main characteristics of cavalry are the same as they have always been, regardless of the advent of mechanization. Its indispensability is greater than ever before.

Major General George H. Cameron, Retired, made a plea for the retention of some of our old customs which mean so much to the military service.

Colonel Adna R. Chaffee, (Cavalry) General Staff, spoke of the work of the budget committee as it affects the cavalry.

Colonel J. B. P. Clayton Hill, commanding the 306th Cavalry, told of some of his efforts on behalf of the cavalry, while a Member of Congress.

Colonel Jonathan M. Wainwright, commanding the 3d Cavalry, explained the details of the demonstrations for Fort Leavenworth students conducted at the Cavalry School while he was assistant commandant of the School, and touched on the far-reaching results therefrom.

Colonel Llewellyn W. Oliver discussed the operations of the 6th Cavalry with an infantry division at Fort Benning last summer, and brought out the vast benefits derived through working with troops of other arms.

1st Lieutenants Mills Astin, 115th Cavalry, and E. V. Luckenbach, 124th Cavalry, told of their recent experiences at National Guard camps.

There being no further business, the meeting adjourned at 10:00 PM.

CHAS. S. MILLER,
Captain, Cavalry,
Secretary.

The Mungo Motor Gun

By SERGEANT TERRY BULL, *Tank Corps*

HHEY soldier! Where can I find the well, if it isn't little Oswald, the demon driver! Steering a passenger carrier too! I thought you were dead a year ago. I know I saw your tank all opened up like a flower that warm morning south of Springfield. How come you're not back in the old outfit?

Oh, I see! Excuse me, fellow. But I still don't see why you couldn't push a tank with a duralumin leg. It would be a lot more useful than piloting truckloads of visiting firemen. By the way, who is that outfit you're waiting for? Oh, the S.P.W. getting an eyeful of the horrors of war, hey?

Well, if we keep on winning the war at this rate, you'll be back with us inside of six months. They're running the ambulances in scheduled convoys now, to keep from jamming traffic. Notice the salvage piles—helmets, rifles, packs. Monuments of the Victory Drive! I'm telling you, unless we get more chariots on this front, these piles are going to get bigger as we go.

We just came out last Friday, and have a requisition in for a dozen tanks and about forty men. Yeah, we may get the tanks, but tankers—I thought we'd struck an all time low when I had to recommend you for corporal. But remember old Hookworm? He's a sergeant *and* a tank commander now.

What's what? You mean that low-slung Buck Rogers looking contraption? That, sonny, is a motor gun, mostly known to our boys on foot as a devil wagon. It's one of

The meanest piece of rolling stock on the Mississippi front.

the big reasons why this drive for peace is not the pushover the papers advertise.

That's so, I guess you've never seen one close up. They just started using 'em in their last push.

Have you got a few minutes to spare before your S.P.W.'s get back? Let's walk over and take a look. You'll be interested to see how small a tank can be built. But keep your hands in your pockets, soldier. The provost marshal here is tough, and they're touchy about souvenir hunters this far back.

Look at that! A .50 caliber must have took him right through the liver. Mmmm! Let's move around to windward.

Isn't she a honey? Nine feet long from tip to tip, three and a half wide, two and a half high, and built like a watch. That doesn't give our antitank men much of a chance, and the way these bugs can slither around amongst high grass and woods is the Doughboy's nightmare.

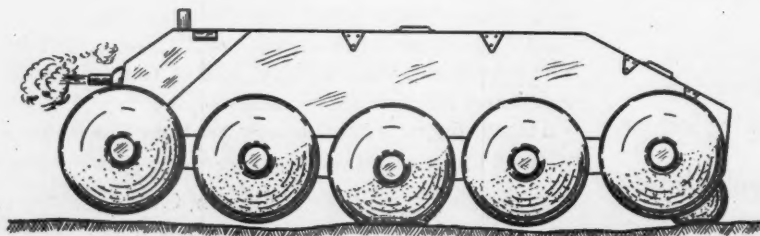
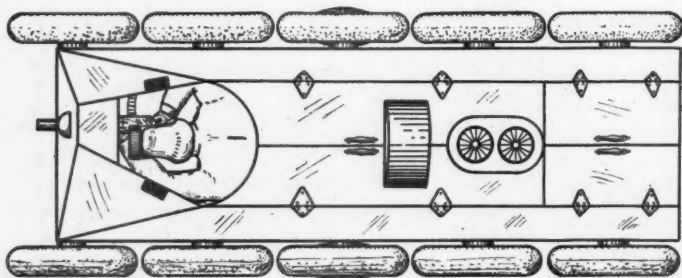
The Mungies took our old one-man tank idea, not realizing that it wasn't practical, and made it work. They took a medium-sized man, put him in the prone position, and welded the hull around him. Then they ran wheels under him, set an engine between his legs, and behold—the meanest piece of rolling stock on the Mississippi front.

Take a look at the armor. Splinter proof on the top, bottom, and rear plates, and just heavy enough on the front and sides to take the punch out of a light A.P. bullet. They don't worry about our heavy stuff because they're so small.

I guess you recognize the gun. It's the same old .25 caliber belt feed, but here are a few new wrinkles you've never seen.

The gun barrel's sawed off so it won't project over the front of the tank. That speeds up the cyclic rate and, being short, the barrel throws a cloud of bullets as big as a wash tub at 300 yards. Still it'll hit hard enough at a quarter of a mile to go through your belly-plate and raise a sizable blister.

Now, notice the ammunition chest up here under the gun. The whole prow is full of hardware. This lad didn't have to dither around with reloading 250-round belts. He just slipped the end of a 3,500-round, factory-loaded, rice-paper belt through his



receiver, and was all set for a long hard day. The empties and belt went out this canvas funnel through the floor.

What! You want to get inside? Well, if you can stand it—. Get that old poncho over there while I raise the back plates. Now spread it over the padding. No, slide back further under the fan until you hit the saddle. You'll find some pedals on the rudder bar. Rest your elbows in these pads—close fit, huh?

No, that isn't a gas mask, it's the sight, clamped right on the gun. Just rest your face in it and take a look at something. Now raise your head above the shield and look at the same thing. Smaller through the sight, yes, but very clear. It's really a half-power periscope. Being a half-power, it gives you a wider field than your peep slots ever did, and with these side periscopes you have all the vision you need.

Your gun clamp is here in the mount. When the Mungs are driving, they lock the gun dead ahead and use the sight for observation. In case they see something to shoot at, they stop behind cover, unclamp, and swing their hell-spreaders across the target to the tune of 1,000 rpm. Then when you have your ears well pulled in, they clamp the gun and come at you on the run, throwing a fistful of bullets every jump.

How? Well, notice the cross-hairs in your periscope. When your motor-gunner starts, he swings his bus until the vertical hair is laid right on the bridge of your nose. Then while his horizontal hair bobs up and down past your eyebrows, he just jerks the trigger in step with the bumps.

Ineffective? I dunno—. If one of those slugs hits you by accident, I expect you feel just as bad as if it was intentional. Even if he doesn't hit you, he generally throws dirt in your eyes and makes you nervous. Furthermore, it's not safe to stick your head up even if you feel lucky, because they travel in coveys, and for every one you see scurrying towards you, there's a couple more laying low and sniping.

That sponge rubber padding—pretty soft, huh? It had to be for a man to hold a position like that all day. Notice how it fits snug all the way from your throat to your ankles, and how your elbows are especially comfortable. The saddle, what there is of it, is adjustable. You bet, it has to be right.

Coming out? Yeah, I thought so.

Now move that lever there—no, pull it towards you. See how that raises the whole platform in front and puts the driver up where he can see something. They run that way on the march, and even while scouting. But you fire one shot and they drop their platforms and snap their heads out of sight like turtles.

See here underneath the platform.

Fuel tank, fifteen gallons, enough to drive this buggy between 250 and 400 miles, depending on what kind of fuel it is. Hmmm—seems to be full of gas, with maybe a shot of ether. I'll guarantee she handled mighty delicate on that brew.

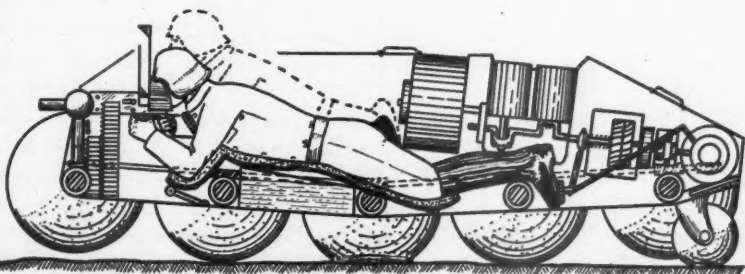
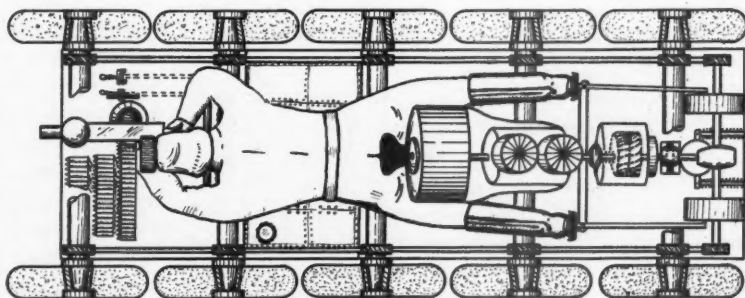
Now let's take a look at the running gear. You see how the tail wheel and the center pair are the only ones on the ground now. The tail wheel is castered to follow right around on a curve, but it's spring-loaded, so that when you release control, the bus takes up a straight line course right away. The main reason for the tail wheel though, is balance, the job being a little tail-heavy. Yes, it's just a tricycle as it stands, but when the going gets soft, the center wheels sink in and the others take hold.

Springs? No. Rigid frame and axles are all you need when the wheels are perforated soft rubber clean to the hub. Yes, it's a copy of our T-12 model, the difference being that we're still adopting them cautiously, while the Mungies saw a good thing and snapped at it.

Ground pressure is pretty good. At say, three inches in the mud, you have all wheels pulling with about 600 inches in contact. The job weighs just short of two tons, giving a little over six pounds to the inch. At six inches, the pressure is about four and a half pounds, which is better than most of the stuff we have.

How does she steer? Just ease back on that near pedal. See how it moves that rod and brake lever. Here in the center of the jack shaft is an ordinary differential. When you slap the brake on the left drum, it slows that side, and the right wheels get more power through the line shaft. That swings her around to the left. If you want to stop, just straighten out on both pedals. That pulls out the clutch lever that the rudder's pivoted on, and puts on *both* brakes.

Of course you can control it. If you want to make a



wide circle, step on the pedal easy, but you can pivot on one wheel if you push hard enough.

The rest of the controls are just as simple. This lever on the right controls the clutch, gear-shift, and clutch-brake. There are only three speeds: forward, stop, and back up. To go forward, you engage the lever in that forward notch. In case you want to stop for some time, disengage the lever and ease it to the rear. The main rod is hooked up with three levers so that about a third of the way up the clutch is disengaged; here the clutch-brake is clamped on; and in the center notch the forward gear is pulled out of mesh.

When you want to reverse, just continue to heave back on the lever, and you engage the reverse gear, release the brake, and let in your clutch, in order.

This little lever controls the air intake and ignition time, but you don't have to fool with that except for starting or fuel changes.

The only other control is the throttle, here on the left. There are a couple of tricky things about it.

In the first place, you have a *minimum* engine-speed governor. Say you want to idle or fire moving at about 200 rpm. Just run this little throttle stop back to about this notch. Better yet, run it back to here, where you'll get about 10 miles an hour. That controls a flyball governor on the fuel feed, so that your engine can always speed up, but if it starts to drop below the set speed, more fuel is pumped to bring it up again.

If you want to fire from a bit of cover, you slide in behind it and extend both legs. That pulls out the clutch and puts both steering brakes on. Then when you see a chance to move forward, just relax your legs. Your brakes come off, your clutch goes in, and you ease out at 10 miles an hour with both hands free to handle the gun.

The accelerator is that pistol-grip-looking thing, convenient for your left hand. To speed up, just grip the trigger harder and hold onto your hat. The trigger action pulls the fuel-feed needle out of its seat, and lets more oil flow into the air-blast cups.

No, my friend, you don't need any other gear shift except reverse. That's on account of the hydraulic clutch. In this housing are two turbines face to face, about a gnat's hair apart, running in a light oil bath. The one that's splined to the crankshaft scoops in the oil and throws it against the vanes of the other. When the going is good, both turbines are running at practically the same speed, just like they were locked together. But when the pulling gets tough, there is "slippage" between them until, on an impossible pull with a wide open throttle at 1,500 rpm, the oil striking the driven blades can't push 'em over. You can hang one of these chariots by her engine on a 50% slope.

Yes, I know it's only about 80% efficient, but it does away with the old gear shift, and it's the one thing that makes the one-man crate possible. Why, the fish-face that owned this bus could crank up at dawn and drive all day, squeezing the throttle with his left hand and firing

the gun with his right. He could idle at one mile an hour or speed up to thirty, using nothing but the throttle.

The power plant? Well, all except the cylinder heads is buttoned up in the asbestos air shield, and we'd better not fool with that while that M.P. is around, but you can get the general idea.

We had to memorize—let's see—it's a "3x3 inch, two cylinder in line, two cycle, valve-in-head, uniflow, air-cooled, air injection, oil burning engine, heavy duty type." It's not near as big as it looks, but being a high compression two cycle, it'll turn out around 35 horse at 1,500. That's plenty of power to run anywhere she can get footing, and she can make more speed than any wise man wants to use.

It's a straight compression ignition job with the pressure regulated by the air throttle on the crankcase intake, at anywhere from 7 to 1 up to 18 to 1. The right pressure all depends on the air temperature, how warm your engine is, and what kind of fuel you're using.

When you go to start this engine, you pull the main control lever back to neutral, and hand-wind the starter spring. Pull the governor throttle stop full open, and open the air throttle about quarter way.

Then you trip the starter. She starts turning over at a great rate, and an overload of oil is blasted into each cylinder. But you probably don't get fire because there's not enough air for igniting pressure, so the next thing is to open the intake throttle until she hits.

You keep on easing the air throttle open until you hear a slight "ping." That's the ignition knock. You should regulate the air so as to keep barely hearing that knock but, of course, for combat running you close down to where she's firing regular and is still in no danger of knocking bad. After the job is warmed up, you can leave the air set all day for minimum speed, unless you change fuel or a freeze sets in.

This engine will use anything inflammable that'll flow through the fuel lines. The Mungs can pull oil out of the ground, strain the sand out of it, and take right off. If they can get gas or kerosene, O.K., but when they're up against it—why, last month my outfit was sent to stomp on a small raiding party near Elberton. We surprised a platoon of these fellows at the Old Mill Distillery, just south of town. But when we moved in on 'em, the most of 'em popped away, with their exhausts just reeking of green whiskey.

Crank her up? You're crazy! You'd have us in the stockade from now on.

But say—that M.P. is gone now. Let's go. You wind up the starter and I'll take care of the fuel and air. Gas in the tank—she should fire on the first rev.

All set? Now trip your start—LOOK OUT! You dimwitted recruit! You didn't have it in neutral. Oh Lord, it's heading right for headquarters—and here comes the M.P.

Simplifying Fund Accounts

By LIEUTENANT L. P. D. WARREN

SINCE time immemorial the proper handling of and accounting for funds has been a source of worry and trouble to officers charged with this duty. Unit funds, as well as those pertaining to officers' messes, clubs, and so on, are handy things to have around; but many a captain and lieutenant, charged with the custodianship of these funds, has acquired gray hair trying to get his books ready for audit by the tenth.

Army officers are presumed to be as honest as the day is long—even these daylight-saving days—and as a rule they are. The exceptions, as Mr. Kipling said about the courage of the British soldier, are “shoved decently out of sight and away.” However, a casual reading of our regulations dealing with the receipt, keeping and expenditure of funds would convince a business man that every Army officer should be checked and watched a little closer than the average business man.

Although the actual bookkeeping operations are simple, being hardly more than an elementary single-entry bookkeeping system, the custodian often finds himself in an embarrassing position, through the neglect or failure of others to furnish those documents necessary to complete a fiscal transaction to the satisfaction of the regulations, and of the auditor detailed by the commanding officer. Without such “allied papers” to support every entry in the council book, few auditors will be satisfied; and if they are missing when an inspector general examines the fund the custodian is likely to find himself explaining by indorsement for some time to come.

In the operation of the Civilian Conservation Corps those fund difficulties so long chronic in the Regular Army have become acute. In most corps areas, company commanders change with depressing frequency and irregularity. In the Fourth Corps Area, for example, this change in command takes place every six months. That is, each officer remains on duty only six months at a time. In District B, which has 43 companies, there were 14 changes of company commanders during the month of May, 11 in June, and before next Christmas there will be approximately 50, assuming that no one goes “haywire” before the expiration of his six-month tour.

To this must be added the fact that these company commanders are all Reserve officers, with little or no previous training in the details of handling unit funds. Another difficulty in this picture springs from the small-town firms with which most of the CCC companies have to deal. The bookkeeping and accounting systems of most of these local establishments are sketchy at the best and at the worst, non-existent. Such concerns will accept and cash a company-fund check, but few of them will return vouchers promptly, and many of them not at all.

When a change of command takes place, the company fund and records of the outgoing officer must be audited

All manner of things can happen to bills, and most of them do happen.

by the sub-district inspector-instructor. Assume a change of command on the fifteenth day of the month. The custodian is required to secure from the bank a complete statement of the account up to that date, including all canceled checks. If his council book shows a dozen disbursements, and the bank returns that many canceled checks, corresponding to entries in the council book and agreeing with the check-stub book, the account is apparently in good shape. But if half the vouchers have not been returned, the records are still not complete, and the auditor is within his rights, in holding up the final clearance of the officer until all vouchers have been secured.

Likewise, the officer who takes over the fund is well within his rights in declining to sign for it until he has been convinced that those payments for which there are no supporting vouchers, were legitimate, proper, and were actually received and receipted for by the payee.

Another difficulty in the time-honored system we have been using both in the Regular Army and the CCC lies in the fact that the incoming commander can never be sure that the next month, or two or three months hence, he will not be deluged with a mass of outstanding, unpaid bills, of which he has no record. Of course, we require every outgoing commander to make a certified list of outstanding obligations against his fund. But, being human, he is also fallible. Imagine the chagrin of a company commander, anxious to make a good showing with his superiors, who takes over a fund whose net worth is shown on the books as \$500 and who then finds himself faced with \$250 in unreported bills on the first of the next month. By this time the old company commander is probably now hundreds of miles away.

In many cases just that has happened. Small-town merchants, and even big-city wholesalers, will sometimes let an old bill rock along until the salesman reports that a new captain has taken command. Then they get busy and send that bill post haste. Maybe that same bill has been rendered promptly when due; maybe someone misplaced the original bill, and someone else forgot all about it; all manner of things can happen to bills, and most of them do happen. The net result is that the new company commander gets a bill covering a purchase of which he has no record. He may or may not be able to trace the transaction and prove that the merchandise was actually bought and actually received by the company. In that case, of course, the bill must be paid. But the paying of it—or of several such bills—may seriously deplete a fund that the books showed to be in excellent condition.

The Cavalry Troop, Valley Forge Military Academy

BY 2D LIEUTENANT CURTIN MACAFEE, 305th Cavalry

SITUATED in the rolling Pennsylvania hills at Wayne, ten miles out the historic Lancaster Pike from Philadelphia, the Valley Forge Military Academy stands on ground hallowed by the Continental Army during the Revolutionary War. In September, 1777, the Battle of the Brandywine was fought a few miles west of the Academy's gates. When the Americans fell back, General Howe occupied the territory of Goshen Meeting House in Downingtown, about fifteen miles west of the present site of Valley Forge Military Academy. During Howe's advance, Washington had ordered General Wayne to harass the British left flank. However, a British detachment surprised General Wayne's force at Paoli, four miles west of the Academy, and this engagement has gone down in history as the Paoli Massacre.

Howe's forces crossed the Schuylkill River, moved on to Germantown and the two armies met again in the

Equitation an Important Feature at School on Historic Site.

Battle of Germantown. Following this battle, Washington withdrew to Camp Hill at Whitemarsh. There his troops remained until December when he led them over the frozen roads through Gulph Mills and into the wooded recesses of Valley Forge.

Today some of the log huts built by Washington's ragged army still stand, barely three miles from the parade ground of the Academy.

The location of the Academy is ideal for the development of horsemen. The countryside is largely open rolling ground, with occasional wooded sections. Within a radius



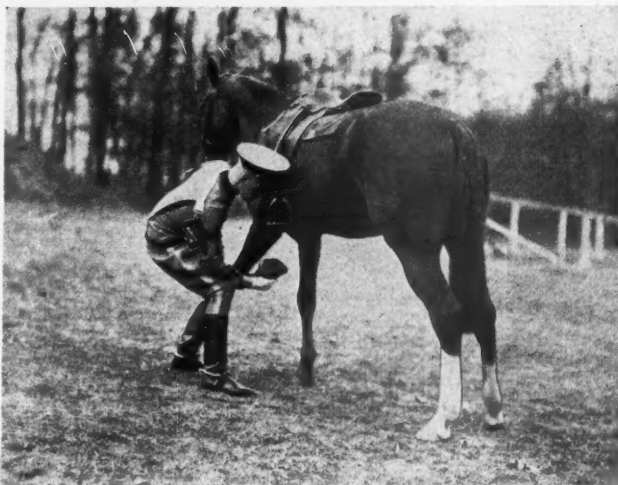
THE CAVALRY TROOP, VALLEY FORGE MILITARY ACADEMY
Riding into position in the Army Day parade held in Philadelphia.

of ten or fifteen miles are located many of the country's leading hunt clubs, such as Radnor, Pickering Valley, West Chester, Whitemarsh, and the oldest existing hunt club in the United States, Rose Tree. The members of the cavalry troop also have the opportunity to participate in the Devon Horse Show, held annually at Devon, a few miles from the Academy; the Bryn Mawr Horse Show, near by; and the famous Philadelphia Indoor, held every year in Philadelphia.

The cadets of the cavalry troop are chosen as a result of competitive examinations in horsemanship. The other cadets continue with the regular equitation courses throughout the year. The instructor and tactical officer of the troop is Captain Edgar A. Gilbert, USMA '21, adjutant of the 103d Cavalry. Captain Gilbert carries out a thorough program of instruction during the year in all phases of cavalry training. In addition to the regular training schedule, every opportunity is taken to provide mounted sports and cross-country rides. These rides became so popular that a club was organized within the troop along the lines of a hunt club. Naming themselves the Harriers, about twenty-five troopers assemble every morning before breakfast, and, with Captain Gilbert setting the pace, take a brisk cross-country gallop.

A large show ring adjoins the modern brick stables, where instruction in jumping is carried on throughout the year, using the jumping seat as taught at the Cavalry School, Fort Riley.

The cadet troopers take a keen interest in polo, but they are not permitted to play the game without first



A trooper inspects his horse's feet.

passing through an intensive course with stick and ball. Every trooper wishing to play polo on one of the troop teams must first demonstrate his ability to handle his mount and mallet.

Colonel Milton G. Baker, superintendent of Valley Forge Military Academy, is himself a cavalryman, being commanding officer of the 103d Cavalry, Pennsylvania National Guard. He naturally takes a keen interest in the troop and sets an unusually high standard of efficiency for them.

The Cavalry Troop of Valley Forge Military Academy is an integral part of the corps of cadets. A cadet captain and two cadet lieutenants form the cadet commissioned personnel. Cadets becoming members of the troop may attend the cavalry branch of the ROTC camps conducted by the War Department during the summer and are eligible for commissions in the Officers Reserve Corps, in which corps many of the graduates of Valley Forge Military Academy are now serving.

The troop has been most favorably commented on by numerous high ranking Army officers who have visited the Academy, and it is one of the best mounted ROTC units in the third Corps Area.

GENERAL FROSSARD, although he was not beaten, thought he was beaten, and therefore was beaten. General Zastrow, though half beaten, refused to be beaten, and therefore was victorious. — COLONEL F. E. WHITTON, Moltke.



Troopers of Valley Forge Military Academy going cross-country.

Colonel John A. Barry

EARLY on Sunday morning, January 10, 1937, the Army lost one of its greatest devotees of horsemanship when Colonel John A. Barry, commanding the 4th Cavalry and the post of Fort Meade, South Dakota, died of pneumonia after an illness of one week. He was 56 years old. Colonel Barry joined the 4th Cavalry on October 5, 1936, ordered to that regiment from Los Angeles, California, where he had been on duty with the R.O.T.C., and served as Commanding Officer of the regiment and post until his death.

Colonel Barry was born in Gallatin, Sumner County, Tennessee, January 27, 1880. As a young man he attended the Webb Preparatory School at Bell Buckle, Tennessee. He was a cadet at the United States Military Academy from 1898 to 1900. On May 1, 1900, he enlisted in Troop D, 3d Cavalry, serving in the grades of Private, Corporal, and Sergeant. On June 13, 1902, he was commissioned a 2d Lieutenant of Cavalry in the Regular Army and assigned to the 2d Cavalry. His first introduction to South Dakota was made while a member of the 2d Cavalry, when he was ordered to Eagle Butte in the winter of 1907-1908 during the trouble with the Ute Indians. Part of his early service was also spent in the Philippine Islands during the Philippine insurrection.

He was commissioned a 1st Lieutenant in 1911. It was while holding this grade that he graduated from the two-year course of the Mounted Service School in 1915. In 1916 he was commissioned a captain, and in 1917 received the temporary grade of major. During the World War he reached the temporary grade of lieutenant colonel, serving as Adjutant General, 11th Division, at the time of the Armistice. He returned to his old rank of captain in 1919 and a year later, in 1920 with the permanent rank of Major, he was assigned as Director of Horsemanship at the Cavalry School, Fort Riley, Kansas. This assignment came at the time when the Cavalry School was being revived and reorganized following the World War. A large number of cavalry officers were ordered to the school for instruction under Colonel Barry's directorship. His influence during these years had a decided effect upon our mounted service.

Colonel Barry participated actively in two Olympic competitions and had an executive position in a third. In 1920 he was a member of the United States Olympic equestrian team in the games at Brussels, Belgium. He supervised and participated with the Army Horse Show Team and was made captain of the United States Olympic Horse Show Team at the games in Paris in 1924. In that year he and his team also competed in the International Horse Show at Olympia Hall, London. In 1932 he was Director of Equestrian Events for the Olympic Games held at Los Angeles, California.

In 1925 Colonel Barry graduated from the Command and General Staff School, and in 1930 from the War College. He was promoted to the grade of lieutenant colonel in September, 1925. From July, 1930, to May, 1931, he served in the Militia Bureau in Washington, D. C. In September, 1934, he was promoted to the grade of colonel.

Colonel Barry was holder of many national and international trophies in horsemanship, among them being the Beresford Challenge Cup competed for by officers of



Colonel John A. Barry.

the United States Army. He gained the first leg on this cup in 1916 and won the trophy permanently in 1923. Another trophy in his possession is the Squadron A Challenge Cup won in 1922 at New York.

Colonel Barry was an officer of exceptional ability. He possessed a brilliant and versatile mind, and a personality of great magnetism and charm. His interests were many and varied; and his outlooks never failed of humor.

Surviving Colonel Barry are the widow, Mrs. Carolyn Yost Barry; a brother, Dr. Thomas Barry; a half-brother, Dr. Richard A. Barr; and a sister, Mrs. Edmund A. Buchanan, wife of Colonel Buchanan, U.S.A., retired.

—CAPTAIN J. H. AUGUST BORLEIS, Chaplain, 4th Cav.

CAVALRY IN THE FOREIGN MILITARY PRESS

Reviewed by Sergeant F. W. Merten, D.E.M.L.

MEXICO

CAVALRY MEETING ENGAGEMENT. By Captain Francisco Barriga Rivas, Cavalry. (*Revista del Ejercito*, September, 1936.)

This "study of a concrete case" is part of the second course in Cavalry Tactics of the *Escuela Superior de Guerra*.

The author introduces the problem by recording some of the characteristics of a cavalry meeting engagement.

When two hostile forces meet unexpectedly, it is evident that neither of the two has sufficient information about his opponent; the two forces will clash before either commander may plan his attack or defense; the result is the meeting engagement.

Each force will try to take the offensive. Eventually, however, one of the two must pass to the defensive or retire, if the hostile attack becomes too strong.

In principle, one should take the offensive in a meeting engagement, not only for its moral influence, but also because the defense in these circumstances will not always have time to take advantage of its main support, the ground.

Generally speaking, a meeting engagement develops as follows:

- Rapid decision on the course of action followed by the security elements.

- Immediate action of the machine guns and accompanying artillery.

- Rapid disposition of the main body.

- Assignment of missions with the view to assuring co-ordinated action of all components, either in attack or defense.

- A meeting engagement demands greatest initiative of the commander, if he is to gain his final objective.

The advantage will be with that commander who first adopts a well-defined, logical and aggressive plan of action and executes this plan promptly and forcefully.

Whether in the offensive or defensive, the security elements generally constitute the point near which the main body executes its maneuvers, with all the freedom of action that the security elements permit. These covering forces give the main body the necessary freedom of action by holding the enemy at a distance, while the main body is going into position. The subsequent operations of the main body usually are influenced by the action of the advance guard. Hence the leader of the advance guard must be informed of the general mission and receive well-defined instructions from the commander concerning the mission of the advance guard and that of the main body.

As soon as the commander has communicated his intentions to the leader of the advance guard and issued corresponding orders, generally with reference to the occupation of a position for the purpose of delaying the enemy

and covering the disposition of the main body, he must quickly support his security elements with the view to assuring the delay of the hostile advance.

Aviation is of considerable value in situations of this kind, for it may furnish the commander the best and speediest information about the enemy and his probable intentions.

In the problem, which the author describes in detail, the decision of the commander is based on a rapid and logical study of the situation. The commander cannot afford to waste precious time waiting for additional information; having some idea of the enemy situation, he must make his decision and execute it with full force. In the course of the action, several opportunities present themselves clearly to recognize the situation and make corrections, though it must be borne in mind that the time and space factors are all-important. A reasonable decision, resolutely executed, the author emphasizes, will produce better results than a continuous change in plans at the critical moment. This reasonable decision may lead to success, if the commander is prepared for an unexpected encounter with the enemy and employs his provisions as the circumstances may permit. The duty to make such provisions devolves upon the commander of all arms.

Though the advantage in a meeting engagement rests with the offensive, the mission or situation in many instances may call for defensive action. The defensive is in order when one has been delayed in going into position, or made some mistake in the disposition of the forces, or lost the initiative but seeks to correct this mistake or initial shortcoming. Throughout the defensive, one must bear in mind, however, that it is imperative to pass to the offensive as soon as possible.

Based on a decision which calls for defensive action, though neither initiative nor freedom of action are lost, the following methods of defense may be used:

- Attack with the object of securing a favorable defensive position.

- Deployment on the ground of initial encounter, under cover of the advance guard.

- Defensive occupation of a rear guard position, while the covering forces gain time by engaging in delaying action.

- Occupation of a flank position, with the view to surprising the apparently successful enemy.

FRANCE

CAVALRY IN CONJUNCTION WITH MOTORIZED INFANTRY DIVISIONS. By General X. (*Revue de Cavalerie*, September-October, 1936.)

Describing the operations of motorized infantry divisions, the author establishes the inadequacy of the organic reconnaissance elements of the motorized division.

While the fire power of the motorized division does not exceed that of the ordinary infantry division, the outstanding feature of the motorized division is its great mobility.

On the other hand, the motorized division is highly vulnerable; on the march its columns cover more than 70 miles of road. Even though the division may be divided into three or four separate columns, it remains a cumbersome body. Subject to hostile air and armored car raids as well as to the fire of long-range artillery, the motorized division, moreover, is difficult to command. This presupposes rapid decisions and a perfect communication system.

The large size of the motorized division and the importance of the time factor call for strong covering forces against hostile ground and air attacks. Distant reconnaissance must operate at least 50 or 60 miles in front of the main body of the division, so as to afford the latter sufficient time to go into action against the speedy attack of a mechanized opponent.

As the present organization of the motorized infantry division includes only regimental motorcycle platoons and machine gun equipped reconnaissance cars for reconnaissance purposes, the author deems it necessary that the motorized divisions be supported by mechanized cavalry and that these two arms receive special training in joint operations.

Strategically speaking, the missions of motorized infantry divisions are as follows: (1) The divisions may be held in rear of the front, as a general reserve, to reinforce the front in attack or defense. (2) The motorized divisions may be employed in gaps, either to exploit a success, or to reestablish the front during reverses. (3) Above all, the motorized divisions may be used to good advantage in enveloping operations on a large scale.

With regard to the first hypothesis, the characteristics of motorized contingents are of no advantage, the author avers. World War experiences show that transported foot troops may well serve the purpose in situations of this kind.

In the second hypothesis, usually at least two motorized divisions are required to fill a gap of any size. It is impossible to conceive the execution of such a mission without the strong support of mechanized cavalry for screening, reconnaissance and security.

Once the hostile front is penetrated, the exploitation of this success depends upon the speed with which the motorized divisions go into action. In order to make his decisions, the commander of the motorized units must know what the new disposition of the enemy will be, where the next engagement will take place, where his troops must detruck and where they must mount their vehicles again for another advance.

This calls not only for air reconnaissance, but also for a strong ground force which may hold the newly gained ground and harass the enemy. Screening detachments composed of armored cars are organized, therefore, with the view to reconnoitering in rear of the hostile rear guards. In anticipation of strong resistance, these screening detach-

ments must include automatic arms carried on cross-country vehicles as well as elements of light artillery.

Since motorized divisions move mainly by day, they require also strong cover on the march. This cover must consist of highly mobile mechanized elements, which may be supported by infantry battalions of the motorized divisions.

The same applies in the case of a withdrawal, when it is the mission of the motorized divisions to fill a gap. Constant and speedy communication must be maintained by cross-country vehicles, operating under the cover of armored cars.

When there is no immediate contact with the enemy, the commander of the motorized units requires covering forces which combine mobility with fire power. Frequently it is necessary for these covering forces to take the offensive, in order to deceive and contain the enemy, while affording the friendly forces time to reorganize. Mechanized cavalry, with its combat cars, antitank guns, engineer and light artillery elements, is well equipped for this purpose.

In our third hypothesis, the enveloping operation, we have the highest type of maneuver. Whether executed on a large or small scale, a successful envelopment brings the greatest physical results as well as the greatest moral results. In a future war, envelopments will be carried out by motorized forces, strongly supported by aviation. Success will be with that side which possesses the greatest speed.

Both mechanized and horsed cavalry are indispensable in such a flank operation. While, initially, the air service may furnish the necessary reconnaissance, cavalry must be on hand to supplement this reconnaissance and, above all, to seize vital points in the zone of advance.

As battle nears and all forces are united, the mechanized arm serves as cover in the leading direction and on the exterior flank. In this it is supported by other light forces of lesser mobility, such as horsed cavalry divisions and the reconnaissance detachments of the motorized infantry divisions. Owing to their lesser mobility, the horsed units operate primarily on the interior flank.

An enveloping operation then is executed by three distinct bodies: first, the mechanized and horsed cavalry; followed by the motorized infantry division; and, finally, the forces carried by other means of transportation. This calls for large contingents of powerful and highly mobile forces, specially trained and organized for operations of this kind.

In conclusion, the author advises against incorporating in the motorized infantry divisions organic elements for these distant screening and reconnaissance missions. The inherent difference in speed of motorized and mechanized forces would interfere with the operation of the divisions. Moreover, modern cavalry possesses the requisite elements in the reconnaissance units assigned to motorized infantry divisions as well as in the motorized and mechanized cavalry divisions.

GERMANY

THE INFLUENCE OF THE GROUND ON MECHANIZED, MOTORIZED AND HORSE UNITS. (*Militär-Wochenblatt*, October 25, 1936.)

In this discussion of "tank-proof ground," the anonymous author emphasizes the importance of the ground in the defense against mechanized attacks on a large scale. Arguing the insufficiency of antitank weapons in opposing large mechanized units, he establishes that "tank-proof areas" actually are only as follows:

- (1) Mountainous regions with many steep slopes, deep cuts and dense woods.
- (2) Extensive marshes.
- (3) Large forests, especially if they are not cleared and have few roads.
- (4) Canals and other water courses with steep banks; the water must be at least 18 feet wide and 3 feet deep to prevent fording.
- (5) Densely populated industrial regions.

CHILE

ADDRESS BY DR. ROMERO AT THE BANQUET TENDERED THE CHILEAN ARMY TEAM UPON ITS DEPARTURE FOR NEW YORK.

(*Revista de Caballeria*, August-September, 1936.)

"There is romance in the history of this group of young men who, for the third time, will compete in the New York horse show. To describe it, one must have observed these riders in action and experienced, with and for them, an emotion such as only he may feel who has resided abroad and witnessed the triumph of his compatriots in international contests. To reflect on these memories to me means to live once more a few typically American hours, filled with the charm for which the land of George Washington and his people are famous.

"The horse show will take place in Madison Square Garden. This enormous hall sometimes holds the three rings of the Ringling circus; on other occasions, it is the scene of ice hockey games, international tennis and boxing matches, and the annual exercises of the police force. The main event of the horse show will be a competition between the Army Teams of the United States, France, Holland, Canada, Ireland, and Chile.

"The Americans carry themselves with the ease and grace that are typical of the soldier of a nation whose army, conscious of its duties, has the faculty of being amiable and at ease in time of peace. The French display great energy, which they seem to impart to their horses at the moment of jumping. The Dutch, dressed in their magnificent hussar uniforms, give an impression of aristo-

cratic fragility. One may say that the Canadians, who ride with a long stirrup and place their feet well forward, show exceptional skill and so make up for their insecurity in seat. The Irish exhibit all of the fire of their temperament, as if, here too, they would reclaim a fitting place among the nations.

"Naturally, it is the Chilean Army Team which attracts us most. To observe this team is to understand why the early natives of our country believed the conquistador and his mount to be one in body—such is the perfection with which these riders guide their horses. There are no unnecessary gestures nor abrupt movements as our four countrymen ride by, one like the other, with identical rhythm and impeccable seat. The clear-cut military movements, the small and young horses, and, above all, the discipline and method stamp our team with distinction. Our pride increases a hundredfold when we see these riders take jumps of a height which is clearly out of proportion to the small Chilean horse, who makes up in boldness what he lacks in size. The riders jump with a grace that reveals the least effort on the part of man or mount.

"So enthusiastic are the American public and press in their praise of the merits of all performances that the Chilean Team, with a sportsmanlike understanding of the exuberant spirit, appreciates the justification of the triumph of their American competitors. I emphasize this comment as it points to an aspect of which we must not lose sight. Truly, a contest of this kind, in which each competitor occupies his proper place, may contribute more to the cultivation of friendly relations between nations than many peace conferences and international congresses.

"I hear that the Chile-American Association wishes to extend an invitation to several Chilean members of the medical profession whom we have sent to the United States in the past few years. I consider this the highest form of expressing the admiration, affection and appreciation which my colleagues and I feel for the United States, where we enjoy such wonderful hospitality, which has taught us much and is now sending to our country some of its most distinguished professional men. This manifestation of friendship, in turn, offers the opportunity which I and, with me, many of my colleagues desire, namely, that of expressing our gratitude to the Chile-American Association.

* * *

"Let us express, therefore, our unanimous and heartfelt desire that the Army Team which we are sending out today may triumph and bring success to the Chile-American Association, an organization worthy of respect, affection and coöperation."

BOOK REVIEWS

FARAWAY CAMPAIGN. By Frank James. Grayson and Grayson, London. 282 pages. One map. 8s, 6d.

*Reviewed by 1st Lieutenant Frank D. Merrill,
9th Cavalry*

The preparations made by Germany before the World War included an attempt to bring Afghanistan in line with Turkey, thereby pinning down in India a large number of British troops. After the start of the war this attempt was intensified. Neutral Persia, lying between Turkey and Afghanistan, was overrun by German agents. The weak and ineffective Persian government gave Russia and England permission to establish large consular escorts in Persia, which were actually used for patrol duty along the Afghanistan frontier.

One regiment of Indian lancers and a regiment of infantry established a cordon of posts for five hundred miles along the Afghan border. Outnumbered by hostile tribesmen, who were encouraged by German agents, these regiments had a record of stirring action for a period of three years. While the book deals primarily with the experiences of the cavalry, the part played by the infantry is not overlooked.

The Persian and Afghan tribesmen had been indifferent to any government for years. They varied their normal occupations by sporadic raids on the Persian villages. These raids required marches of several hundred miles through desert country and the Persian government was totally unable to stop them. It was an easy matter for German agents to persuade these tribesmen that raids on British establishments and convoys were much more productive than raids on poor villages. These German agents were specially selected officers of the Imperial forces. That they succeeded in fulfilling their missions was a notable accomplishment, as they travelled thousands of miles through incredibly difficult country with constant danger from the tribesmen to whom race meant nothing.

The British first attempted to subsidize these tribes but this was a failure. The tribes would accept money from both sides impartially, but continued to raid British convoys. The final solution was a combination of subsidies and force.

Throughout the story the dependability of the Indian troopers is repeatedly shown. A strong escort conveying prisoners was ambushed by the tribesmen in a mountain pass and the English officer commanding the escort was wounded and left in the open. His Indian sergeant called from shelter, "Sahib, I have three men left. They will open fire and I will come and get you." He did this under heavy fire from the tribesmen and the party withdrew safely, although losing its prisoners.

On the outbreak of the Russian revolution, the cordon

of patrol posts was rapidly changed to a line of communications. Russian Turkestan offered an avenue of approach to Afghanistan for both German agents and Turkish troops. Those Russians opposing the Bolsheviks were termed Mensheviks and they made an agreement with the British. The British objective was to prevent any advance of Turkish troops from Baku towards Afghanistan. Both the British and the Mensheviks were united in a desire to destroy the Bolsheviks in southern Russia. The British agreed, therefore, to render financial aid to the Mensheviks and to concentrate some troops on the Russian border as moral support. In return, the Mensheviks agreed that when they had won control they would keep the Turks from advancing eastward and also to keep German agents from inciting the Afghan tribes to further activity. The lancer regiment was included in the force which was sent to the Russian border.

Against the Bolsheviks the Indian troops again demonstrated that they were fine cavalymen. A patrol of thirteen men commanded by an Indian noncommissioned officer was cut off by a force of Bolshevik cavalry outnumbering them ten to one. This patrol calmly formed line, downed lances and charged, breaking through with a loss of three men. Several months later one of these men returned to the regiment. He had been taken prisoner and he was sent to the interior of Russia where he had escaped and made his way five hundred miles through hostile territory to rejoin his troop. Two years later another one of these men rejoined the regiment in India. He also had been made prisoner and escaped, making his way eastward to China, where a British Consul had furnished him transportation to India.

The book will be of interest to many cavalymen. It is in no sense a detailed history, but rather an informal story of 1,500 miles of marching and fighting by a cavalry regiment to keep open a line of communications over a thousand miles long and to patrol a border of equal length. It gives a picture of a little known episode of the World War in a readable and entertaining manner. The author, who was an officer of the regular army, commanded a squadron in the lancer regiment.

COMBAT INTELLIGENCE. By Major Edwin E. Schwien, Cavalry. The Infantry Journal, Inc., Washington, 1936. 125 pages, 17 sketches. \$2.00.

*Reviewed by Major Please B. Rogers, Infantry,
Instructor, The Cavalry School*

"A servant is worthy of his hire." An author should be worthy of his subject. Major Schwien, graduate of the Command and General Staff School, graduate of the Ecole Supérieure de Guerre, and instructor in Combat In-

telligence at the Command and General Staff School for four years, is probably the best qualified officer in our Army to write on his subject.

The subject matter is presented as follows: Part One, "The Intelligence Factor in its Relation to the Commander"; Part Two, "Collection, Interpretation, and Dissemination of Enemy Information"; and Part Three, "Application of Intelligence to Small Units."

Part one explodes completely and finally, it is to be hoped, the old school of thought that one can "divine" the "enemy's probable intentions." It illustrates by historical examples how futile such a practice is and submits a reasonable, logical procedure whereby the future capabilities of the enemy that can interfere with the accomplishment of your mission are considered and a decision arrived at that will accomplish the mission in "spite of anything the enemy can do to interfere."

Part two might well be called a manual for division intelligence officers. It covers clearly and in detail the classification and characteristics of collecting agencies, the collection of enemy information, the handling of prisoners and captured documents, and the evaluation and interpretation of information and its dissemination.

Part three is a complete exposition of the duties of the intelligence officer of the infantry battalion.

The principles propounded in the book are convincingly supported by historical examples taken from the World War. These examples appear sufficiently convincing to disarm even the most determined opponent.

The sketches that so completely illustrate the subject matter are a joy. Instead of being in a separate folder, which so often is inaccessible or misplaced, they are bound in the book so that they can be opened and referred to as the subject matter is read.

This reviewer believes that every officer in our Army will materially profit by reading this book, and that it should be an indispensable part of the library of every commander and every intelligence officer.

RIDING. By Benjamin Lewis. Derrydale Press, Inc., New York, 1936. 141 pages. Illustrated. \$10.00.

Reviewed by Major Kent C. Lambert, 9th Cavalry, Chief of the Department of Horsemanship, The Cavalry School, Fort Riley, Kansas.

Riding, by Benjamin Lewis, is a beautifully illustrated book. It will, without doubt, help the intelligent beginner, who has a suitable horse. It will enable him to approach some degree of proficiency in riding without the aid of an instructor. Naturally, greater proficiency would be attained with the aid of a competent instructor.

The author's explanation of the balanced seat is basically in agreement with the teachings of the Cavalry School, especially with regard to the position of the upper body at various gaits and in the application of leg and rein aids. Minor differences, such as allowing the lower leg to move forward beyond the vertical position of the stirrup straps, to move the forehand over, to turn the hands inward when applying the direct rein, and position of the

hands with the back of the hands down and nails up, while turning the horse to the right or left, are noted.

The author's chapter on jumping is on the whole very good. Especially noted is the insistence on beginning the jumping practice over low obstacles at the trot. This method has been in vogue at the Cavalry School many years where jumping at the trot is basic training for all cavalry horses; remounts are started and old jumpers are practiced in this type of jumping; the rider, as a matter of routine, acquires the proper seat at this gait in approach to, passage over, and departure from the jump.

I disagree with the author in the practice of requiring the green rider to jump without stirrups in the effort to acquire confidence, balance, relaxation and ease in form.

The author gives repeated advice to the rider about keeping the buttocks out of the saddle, but this will result in straightening the knee and standing in the stirrups. This position may get the rider comfortably over low jumps. However, when obstacles are high, weight on the stirrups and a straight knee will upset balance on landing. The rider will go forward and require the aid of his hands on the horse's neck to maintain position.

The author employs the term "forward seat" but interprets it differently from the Cavalry School. Actually the correct "jumping seat" is a lowering of the center of gravity. To accomplish this, the upper body is lowered toward the base of support, furnished by the lower legs, knees, inner thigh and crotch. The rider crouches in the saddle with the spine straight. To furnish a firm support, the legs should be fixed in the same position at the take-off, over the jump, and during departure from the jump. When this position is taken, the buttocks are out of the saddle. The knees, the inner thighs, and the crotch maintain position. The angles at ankles, knees, hips, and elbows should be closed. As Colonel Chamberlin says in his book, *Riding and Schooling Horses*, "The rider sits down." This statement, incidentally, was criticised by readers who did not understand what was meant.

Jump riders and instructors would profit by looking at the pictures of Colonel Chamberlin, Major Bradford, and Captain Thomson over the tops of big jumps. The ease and relaxation of both horse and rider in this position should be noted. Angles at ankles, knees, and hips are closed and upon landing, the riders are in complete balance and accord with their horses. These riders do not receive the whip of the upper body upon their horses' necks, which always results from opening the above mentioned angles and allowing the upper body to be driven outward and upward. On low jumps this shock is not violent because the horse makes little effort in his thrust. On big jumps, however, the impulse is powerful and the rider who falls forward on landing has lost complete control of himself and his horse.

The author fails to stress the basis of all good jump riding, i.e., the fixed lower leg, heel down, on the take-off, over, landing, and beyond the jump from which relaxation, ease, and control of the upper body come. The moment the muscles of the lower leg involuntarily are

relaxed from the strain of the thrust at the take-off, the weight of the upper body goes out of control and pivots violently over the knees. The rider must routine himself to counteract this involuntary muscular reaction.

The author also makes a difference in the length of stirrup for low obstacles at slow speed and high obstacles at fast speed. The reviewer takes issue with this. For both, the stirrup should be short which allows lowering of the center of gravity to a wider base. The knee as a fixed pivot is advanced and the upper body on its whip forward drops down to the center of gravity and not beyond, thereby easing the tension on the effort of the lower leg.

By recommending the use of the double bridle for the beginner in jumping, the author is certainly providing punishment and discouragement for the "good mouthed" horse.

To sum up, as in most books on riding, there is much to criticize. There is too, a wealth of excellent advice and the green rider who masters all that is taught in this book will profit by it. With its help he may become a fair rider with a good position. If, however, he succeeded in achieving the position shown by each "correct" picture in the book, he would still have many faults to overcome before he could be classed as an excellent rider.

WAR MEMOIRS, Volume V, 1917-18. By David Lloyd George. Little, Brown, and Company, Boston, 1936. \$4.00.

Mr. Lloyd George's fifth volume of *War Memoirs* treats of the situation in late 1917 and the events of early 1918, and closes with a general survey of the American war effort.

Paying his respects again to the almost-unbelievable stupidity of what Foch called Haig's "duck's march through Flanders" at Passchendaele, the author paints a picture of the war weariness of the winter of 1917-18, emphasizes the known fact of Ludendorff's decision to make a great offensive in order to forestall the arrival of American reinforcements, and then recounts the long series of national and inter-allied squabbles and intrigues which nearly made Ludendorff a present of victory.

In an analysis of the British manpower situation, Lloyd George asserts that the Empire was contributing its last ounce of strength in early 1918. Even after the débâcle of the Fifth Army permitted the enforcement of combining-out measures inadvisable before, only 135,000 more men could be supplied. The Germans had held the Western Front for two years against a 50-per-cent superiority. When they attacked in 1918 they had only equality in numbers, and were definitely inferior in artillery, tanks, airplanes, and transport. The average infantry strength of the British divisions, Lloyd George avers, was greater than the German.

After a brilliant thumb-nail sketch of Clemenceau, he reviews the serious differences between Haig and Pétain as to the probability, locality, and strength of a German offensive. The greatest difficulty was encountered in

framing an Allied plan of campaign. Until December, Haig still wished to renew the Passchendaele offensive. Finally, in early February, the Supreme War Council adopted their military representatives' plan for an inter-allied General Reserve under an Executive Board with Foch as President.

Although Haig and Pétain did not openly oppose this plan, they united in covert opposition. In the meantime they wrangled over the extension of the British front to the south. Not until January 10th did Haig consent to an extension to Barisis, it being at last evident to him that renewal of the Passchendaele offensive was impracticable.

Robertson, Chief of the British Imperial General Staff, had favored the General-Reserve project until it was decided that control should not be vested in the respective (War Department) Chiefs of Staff. He then attempted to wreck it by a newspaper campaign launched through Repington, in which Maurice, British War-Office G-3, was also implicated. This campaign, as indicated by German sources, gave valuable information to the enemy. A Cabinet crisis in London was narrowly averted, and Robertson, declining to retain his post or to accept the detail to Versailles unless he could have both, was relieved by Wilson. The breach of censorship was punished only by fines, inasmuch as a more vigorous prosecution might have involved further undesirable publicity. Lloyd George makes use, with telling effect, of Ludendorff's statement that he knew of the existence of a British "military party" hostile to the Administration, and hoped that it would weaken the British war effort at home.

In spite of weathering this storm, the project for a General Reserve was lost. It was negated in practice by Haig and Pétain, who were supported by Clemenceau. Lloyd George believes that Clemenceau was actuated by distrust of Foch and also, as M. Poincaré believed, by a vague desire to exercise himself the powers of an Allied generalissimo.

Until a month before the German attack, Haig thought that the main blow would fall on the French. Not until the end of February did he become convinced that it would fall on the sector he had just taken over from the French. Occupancy of this new front by the British Fifth Army had been delayed by the squabble over the extension of line. Moreover, the accessory defenses, except for the extreme forward area, were practically nonexistent, and the Fifth Army was accorded scanty resources in troops and in labor. The British mass was still retained well to the north. The arrangements for mutual support between Haig and Pétain, represented as complete and detailed, were in fact, sketchy in the extreme. Pétain, deceived by Ludendorff's diversionary measures, kept the mass of his reserves well to the south-east.

When the blow fell, British GHQ was dilatory in requesting assistance and in sending help. French reinforcements arrived slowly, and were short of artillery and

ammunition. Almost 90,000 men from the BEF in France were on leave in the British Isles. Some 40,000 more, available at home, had not been sent to the Continent. No use had been made in France of British limited-service men. No steps had been taken, as arranged, to bring Italian or British troops from Italy, or to bring back British troops from Palestine and Egypt, replacing them there with Indian divisions from Mesopotamia, where the British had a vast superiority. The War Office showed signs of shock and paralysis. Mr. Lloyd George intervened there personally, and sent Milner to France; all the measures that might have been carried out before were now taken when it was too late.

Lloyd George exonerates General Gough in the defeat of his Fifth Army. He insists that Haig and Haig alone was responsible for the disaster which had befallen the latter's old and loyal friend, and also for Gough's relief from command.

Lloyd George closes the narrative in this volume with the German check before Amiens. That portion of his book which has received most attention in this country follows in the last chapter, in which he gives a brief résumé of the American war effort. Here he gives thanks for our naval, financial, and economic assistance, but takes us severely to task for our faulty industrial program and our slowness in building a great army. In the main, his comments are no more severe than those of General Pershing. He forgets, however, that on entry into the war we did not expect, or have sound reason to expect, that our contribution would involve the creation of a great army.

Mr. Lloyd George is justly proud of his country's war effort. But he errs in claiming that Britain, a detached Power, fought only because she had bound herself to aid Belgium. And he forgets that the United States was far more "detached" and was bound to aid no one. Britain fought *because she had to*. We fought because of our conception, right or wrong, of the demands of national honor.

Any other reason than solid national interest would constitute a grave reflection on any government leading a nation into war. In this respect our government was perhaps blameworthy, but not on the grounds stated by Lloyd George. Assuming that war with Germany was necessary, our error was rather that we allowed ourselves to be persuaded that national interest demanded that we place a large army in continental Europe.

As a British politician Lloyd George takes it for granted—or pretends to—that our duty was to prevent the defeat of our European associates by fulfilling their demands for manpower notwithstanding the fact that our men were to be used for purposes in which we did not have a controlling voice. But this, strangely enough, is precisely the point of view which he condemns, *as within his own government*, in the attitude of Haig and Robertson toward the Cabinet.

As a loyal British subject, Lloyd George shudders at the thought of defeat by any enemy. So he takes Pershing to task, because, in spite of a grave emergency,

Pershing constantly strove to create a balanced American force, even though this reduced the number of infantry badly needed by the Allies. Lloyd George points out, however, that Pershing is entitled to say that the emergency would never have occurred except for Allied bungling.

He attributes Pershing's policy not, as stated by the latter, to considerations of *national*, but rather of *personal*, prestige. And this Lloyd George considers as another typical example of the workings of the professional military mind. After his experience with his own High Command, it is not surprising that he should suspect such an ulterior motive in an American soldier. But that does not constitute valid evidence of such a motive. Moreover, there is too much evidence to the contrary.

Pershing's stand was soundly based, not alone on national prestige, but on other national interests. It was not to our interest to throw into Europe a great force of our infantry to be scattered among alien formations, at the mercy of the inept and intriguing Allied leadership which Mr. Lloyd George condemns. Pershing leaves no doubt, in his own book, as to his reasoning on this score. While tactful, he is nevertheless definite. He saw things much as Lloyd George saw them, but his decisions were necessarily different, because he was as loyal to his country as Lloyd George was to his.

It must be evident to Mr. Lloyd George, that the graver the danger of Allied defeat, the greater our need in Europe for a balanced American force. If Haig fell back on the channel ports, and Pétain on Paris, as nearly happened (*vide*, among others, Lloyd George himself), only a balanced force could act effectively as a unit under our own flag. How else, for that matter, had Great Britain's troops ever acted, or those of her sister commonwealths?

Lloyd George overlooks the fact that Pershing was fighting, as any general of ours must fight, an American war—not a British or French war. While we subscribe to unity of effort among the members of a coalition, we cannot pursue such unity at the expense of our vital national interests. No more would Mr. Lloyd George, or any other statesman worthy of the name.

The lamentations of this distinguished Welshman over our government's refusal to over-ride the sound decisions of our theater commander in Europe, constitute a compliment to Mr. Wilson and to Mr. Baker. His regret that he had to deal with Pershing, instead of someone more pliant, preferably a civilian, is an unintended compliment to our professional military personnel.

With a full heart Lloyd George pays tribute to the gallantry of our fighting men. With equal measure we can return this tribute. If he bemoans their lack of training, we have also taken it to heart; among other things we deeply regret that we turned over their training so largely in our own country to European officers who knew nothing but the trench warfare which our troops were not to fight. E.S.J.

ORGANIZATION ACTIVITIES

Target Practice From Combat Cars of 1st Cavalry — 2d Cavalry Tests Proposed Changes in Cavalry Field Manual — 3d Cavalry Participates in Inaugural Parade — December Outdoor Training at Ethan Allen — 4th Cavalry Completes Remount Training — 5th Cavalry Stresses Equitation and Polo — Drag Hunts, Basketball, Bowling at Fort Oglethorpe — Colonel Herr Conducts Fifty-four Mile Staff Ride — 8th Cavalry Collective Training Season Starts with a Bang — 10th Cavalry Enjoys Winter Horse Shows — Training Troop as Tactical Unit at Presidio of Monterey — Polo Tournament Brewing at Fort Brown — Fort Ringgold's Effie, the Bobcat, Departs this Vale of Tears — 13th Cavalry Learning Mechanization — Remount Training, Polo, Equitation at Fort Des Moines — 103d Cavalry Has Two Polo Teams — Hunting Great Attraction in 305th Cavalry — 306th Cavalry Holds Numerous Conferences — 307th Cavalry Produces Regimental History — 308th Cavalry Preparing for Summer Camp.

1st Cavalry (Mecz)—Fort Knox, Kentucky

COLONEL BRUCE PALMER, *Commanding*

THE months of November and December constituted the combat firing season for the 1st Cavalry. For the Machine Gun Troop, this included both caliber .30 and caliber .50, firing against fixed and moving targets from ground positions. The remaining troops conducted firing against similar targets from their cars both in place and in motion. This was the first year that the new combat cars were available for this firing and great interest was aroused. The results obtained were better than had been expected. Another new type of firing was tested during combat firing with the Thompson Submachine Gun. These guns, which are furnished each combat vehicle for short range fire, were fired through the ports of the vehicles against ground targets with excellent results. Each troop had at least one night firing exercise in which they left the motor park after dark, went to their positions, and fired using tracer ammunition to assist them in getting on their targets.

Each troop has been required to test the troop alert plan by unexpectedly giving orders for a march to some point within fifty miles of the post and reporting the actual time elapsing before their departure, fully equipped for the field.

Under supervision of brigade headquarters a radio school and a mechanical school have been established at the post. All the radio operators of the regiment, and some replacements, are attending the radio school, either as students or instructors, while each troop has a number of men in the mechanical school, which also conducts a class for those officers who are not graduates of other schools.

The brigade has held one road march, on November 17th, and two reviews, one on November 27th, for the Honorable Lister Hill, Chairman of the Military Affairs

Committee of the House of Representatives, and the other on December 15th for a group of officers from Washington and Headquarters, Fifth Corps Area, assembled to discuss maintenance methods in mechanized units.

The increase in strength of the regiment, coupled with the transfer of a number of men to the 13th Cavalry, has resulted in the enlistment of a large number of recruits. Prior to joining their troops all recruits have undergone a five weeks' course of training under Lieutenant Clayton J. Mansfield.

During the latter part of December Major Burton C. Andrus, Captains Erle F. Cress and Richard T. Willson and 1st Lieutenant Philip H. Bethune returned to duty with the Regiment after attending a course at the Motor Transport School. Major Richard N. Atwell was relieved from assignment to the 1st Cavalry in November and detailed in the Quartermaster Corps being assigned to duty at Camp Holabird. 1st Lieutenant James E. Davidson, Cavalry-Reserve, of Omaha, Nebraska, was on active duty with the 1st Cavalry from November 5th to 19th.

2d Cavalry—Fort Riley, Kansas

COLONEL DORSEY R. RODNEY, *Commanding*

FOOTBALL was organized on a troop basis during the past season. Every troop was represented except Headquarters Troop. Each team played each other team one game. It was a most successful season, with few injuries and a maximum of players from each troop. Troop E was awarded the championship, with 3 games won and one lost.

The post basketball league opened January 4th. The league consists of eleven teams, 6 from the 2d Cavalry, 4 from the 84th Field Artillery, and one from the 9th Engineers. There is much enthusiasm in basketball circles at

present. The four teams winning the most games will play for the post championship. The 2d Cavalry teams are being coached by 2d Lieutenant George W. Thornbrough, Cavalry-Reserve, a former Kansas State College star.

The post boxing season opened January 12th with a big card of fighting and wrestling stars. This is one of the big attractions during the long winter in Fort Riley, and promises to be especially successful this year. First Lieutenant Whitside Miller, 2d Cavalry, has charge of the sport.

Bowling is drawing a big attendance again this winter. There is an enlisted men's league of 14 teams, an officers' league of 9 teams, and a ladies' league of 4 teams. Tournament games are played 5 nights each week. The final games will be played about March 1st.

Many of the 2d Cavalry officers have been engaged during the past three months assisting the Cavalry Board in revising the Cavalry Field Manual. This manual promises to be a valuable addition to cavalry training literature. It will cover both horse and mechanized cavalry.

During the month of December, a test was conducted on the proposed changes in Basic Field Manual, Volume III, Rifle Marksmanship, in compliance with letter from the Cavalry Board. The detail consisted of twenty-seven firers, as follows: 4 experts, 18 sharpshooters or marksmen, and 5 unqualified. The men were not picked for high scores, or particular shooting ability, but were an average group as may be found in any organization. The time consumed for firing this test was one week which included three days spent on the 1,000-inch range. All men qualified, some below their previous qualification, while others attained higher scores. It is believed that the weather had considerable to do with the scores. Fires were necessary behind the firing points, and on two occasions tents and sibley stoves were used to keep the men warm when not firing. It is further believed that the skirmish run phase introduced in connection with the rapid fire at 200 and 300 yards will prove beneficial in making better battle shots.

The regiment has recently received instructions to organize, equip, and train a reconnaissance squadron, which is an integral part of the new infantry division. The present organizations will be a test of this unit, with the object of determining the soundness of the idea, the need for cavalry reconnaissance elements in the Infantry Division, and the development of tactics and technique for this squadron. It will consist of 15 officers and 195 men, and will be entirely motorized. In addition, it will have a signal corps detachment of 14 men. It will contain 16 scout cars, 3 personnel carriers, 24 solo motorcycles, 25 motorcycles (3 x 2), 12 cargo trucks, and 4 reconnaissance trucks. Its armament will consist of 52 light machine guns, 20 caliber .50 machine guns, 65 sub-machine guns, 31 rifles, and 210 pistols. The personnel of this squadron may look forward during the next year to a tremendous amount of hard but interesting work, a lot of new experiences, much traveling over the country, and the certainty of being closely watched by all arms of the

service and particularly by high ranking officers of the Army and important civilian officials.

3d Cavalry (less 1st Squadron)— Fort Myer, Va.

COLONEL JONATHAN M. WAINWRIGHT, *Commanding*

THE 3d Cavalry (less 1st Squadron) went into active preparation in November, for the Friday afternoon exhibition drills which started on January 15th. These drills have become famous to all Washington and vicinity and the demand for tickets always greatly exceeds the supply. To date three very successful exhibitions have been held, the first in honor of the Chief of Cavalry, Major General Leon B. Kromer, the second for Major General Upton Birnie, Jr., Chief of Field Artillery, and the third in honor of the Military Affairs Committee of the House of Representatives.

In all exhibitions, the guests of honor are greeted at the Fort Myer Gate by the Commanding Officer, Colonel Wainwright, and the requisite number of guns are fired in salute, after which they are escorted to the hall by a specially selected Escort of Honor from the Machine Gun Troop, 10th Cavalry.

The exhibition drills will be held each Friday afternoon to include March 19th.

Following the last drill, the post will present its annual pageant, which this year will be titled "Hoof-Prints" and will be held on April 1st to 4th. The theme of the coming production is "Man and Horse Thru the Ages" which will provide an excellent background and readily lend itself to the brilliant performances of the 3d Cavalry horsemen.

The regiment participated in the inaugural parade on January 20th with great credit to itself, but no comfort. Leaving the post at 12:00 noon in a terrific downpour of cold rain, the troops marched about six miles to an assembly point. The rain poured down, and virtually all were soaked before the start of the march up historic Pennsylvania Avenue. Fortunately, the rain abruptly ceased before the regiment reached the Presidential reviewing stand in front of the White House, enabling the troops, though soaked, to present a very creditable appearance. The Chief of Staff, General Malin Craig, in a letter to the regimental commander was loud in his praise of the entire command.

Orders have been received, detaching many of our officers to other duties next summer. Major Arthur P. Thayer goes to the Army War College, Major James T. Duke to General Staff Duty, 1st Cavalry Division, and Major Thos. J. Heavey and Captain Donald H. Gallo-way to the Command and General Staff School, Fort Leavenworth. 1st Lieutenants George R. Grunert, Frank S. Henry and Marshall W. Frame will go to the Cavalry School for the 1937-38 course. Captain John H. Stadler has gone on leave prior to sailing for the Philippines in

March and the command of Troop E has been taken over by 1st Lieutenant John L. Hines, Jr., who is due to receive his promotion to the grade of Captain in June.

1st Squadron, 3d Cavalry—Fort Ethan Allen, Vermont

LIEUTENANT COLONEL THOMAS H. REES, *Commanding*

DURING the month of November most of the training of the squadron took place in the riding hall due to the snow and extreme cold. December brought a welcome relief in the form of unseasonable warm weather which permitted outdoor training.

The last snow storm brought the various news-reel photographers on their annual trek to this north country to picture the squadron in drill evolutions through the snow. In the charge, one horse decided not to swerve out and struck an intrepid camera man, who was severely bruised. His camera was a complete wreck.

The small-bore enthusiasts are busily engaged in the tryouts for the regimental team. Seven places on the team are to be filled by shooters from the squadron. That well-known old timer, Sergeant Stanley Blazejevski is acting as coach. Postal competitions have been arranged with the 1st Cavalry and 24th Infantry and local Vermont teams.

The 1st Corps Area Horseshoers and Saddlers Schools are now being conducted under the supervision of Lieutenant Colonel Thomas H. Rees, Jr., with Sergeant Stanley Blazejevski and Private, First Class, Francis E. Gormley as assistants.

The first of a series of monthly mounted gymkanas was held in the post riding hall on December 29, 1936. Bleachers were erected on the east side of the hall, providing about 1,200 seats.

The "Standing Room Only" sign was put up one-half hour before the start of the show, indicating the interest of the people of the surrounding towns in anything military. The events were very interesting as evidenced by the applause. The winners of the events are as follows:

Pair Race: Mrs. Robert Dow and 2d Lieutenant R. C. Williams, Field Artillery-Reserve.

Musical Chairs: Private Philips, Troop B.

Equipment Race: Corporal Gourre and Private First Class, Ciliberto, Troop B.

Uncommissioned Officers' Jumping: Sergeant Roy Wood, Troop A.

Scout Car Competition: 1st squad, Private McGrath.

Mounted Wrestling: Troop B.

Officers' Jumping: 2d Lieutenant R. C. Williams, Field Artillery-Reserve.

Stunt Jumping: Sergeant Roy Wood, Troop A.

Musical Ride: Troop A.

First Lieutenant James L. Dalton has left for a three months' course in the Motor Transport School at the Holabird Q.M. Depot, Baltimore, Maryland. Major Frederick H. L. Ryder and Captain Joseph M. Glasgow have received orders to attend the Line and Staff Officers' Course at the Chemical Warfare School, Edgewood Arsenal, Maryland, starting February 7th.

Major Samuel V. Constant reported for duty January 4th, coming here from China. Second Lieutenant Edward W. Sawyer arrived from Fort Meade on December, 29th.

4th Cavalry—Fort Meade, South Dakota

LIEUTENANT COLONEL EDWIN O'CONNOR, *Commanding*

ON September 26, 1936, the regiment received a much needed replacement of remounts in a shipment of one hundred head from Fort Robinson, Nebraska. The animals were en route for twelve hours and were not unloaded during the trip. Immediately upon arrival, they were led by hand from the stockyards at Sturgis to Fort Meade and placed in quarantine.

The animals were immediately assigned to the various troops for conditioning and training, which was carried out progressively as rapidly as the condition of the remounts would permit. Most of them were in fair flesh and condition upon arrival, but others were very thin and required special feeding before much in the way of training could be attempted.

The usual diseases peculiar to remounts developed with considerable intensity, but after a period of three months from date of receipt, all were turned to duty with the organizations to which assigned, where they are now being exercised and trained. No losses occurred during or after the period of quarantine.

An additional shipment of sixty head is expected soon.

The post exchange and the officers of the post made donations to finance the "Theme Song" of the Christmas Tree Party, "A Christmas Gift for Every Child." This enabled us to assist Santa Claus (who appeared personally) in giving each of the 153 children, fifteen years of age and younger, selected by a committee of officers' wives, a very nice Christmas present. Our Christmas Tree Party was opened by the 4th Cavalry Band playing a concert of four numbers: "Around the Christmas Tree," "Cantique de Noel," "Hallelujah Chorus (Messiah)," and "Jingle Bells."

Christmas Eve was the climax of the Christmas activities. At 6:30 P.M. the "Young People's Choir" of the Post Chapel assembled at the Chaplain's quarters and then proceeded to the Station Hospital where they sang several Christmas carols for the benefit of the patients. From here the choir began their tour of the post, singing carols in front of all quarters of commissioned and non-commissioned officers.

Later in the evening two quartettes, made up of members of the 4th Cavalry Band, contributed their share in extending Christmas greetings to the post personnel by touring the post and playing Christmas carols. The brass quartette left the band barracks at 7:00 P.M., and at 7:30 P.M. the saxophone quartette started on its way around the post.

The final chapter of our Christmas activities was the very well attended 11:00 P.M. candlelight service in the post chapel. The program for this service included a

violin solo, two vocal solos, a selection by a men's chorus, carol singing by the congregation, and Henry Van Dyke's story of "The Other Wise Man" read by the post chaplain.

The First Winter Horse Show in the Riding Hall, was judged by the Commanding Officer, Colonel John A. Barry, December 22d. The classes with winners, were as follows:

Best Military Rider: Private, First-Class, Melhorn, Troop A.

Exhibition Kas Kav: Troop B.

Privates' Jumpers: Private, First-Class, Hayes, Headquarters Troop.

2d Lieutenants' Jumping: 2d Lieutenant Robert J. Quinn, Jr.

Non-commissioned Officers' Jumping: Corporal Hahn, Troop F.

Enlisted Men's Open Jumping: Private, First Class, Burns, Troop A.

5th Cavalry—Fort Clark, Texas

COLONEL ROBERT C. RICHARDSON, JR., *Commanding*

THERE have been several recent transfers of officer personnel within the regiment. These changes were made to allow those officers that are candidates for the Cavalry School to have duty with the Machine Gun and Headquarters Troops, before departing for Fort Riley.

The regiment is very fortunate in having exceptional equestrian talent available. Major Calvin DeWitt, formerly head of the Department of Horsemanship of the Cavalry School, and Captain Carl W. A. Raguse, member of the 1936 Olympic team, are instructors in Officers' equitation classes, which are held three afternoons a week. Major DeWitt is also in charge of remount training. At the present time there are twenty remounts being trained, and they will soon be released to troops. Forty additional remounts are expected to arrive from the Fort Reno Remount Depot soon.

The regimental training program for the months of November and December was devoted mainly to close and extended order drill and equitation. January and February will be devoted to combat training and short practice marches.

Twenty-seven recruits have completed their initial training and were assigned to troops for duty just before Christmas. About thirty others are in the recruit detachment at present.

The principal winter sports at Fort Clark are polo, controlled rides, and basketball. There are enough polo playing officers at this post to form four complete polo teams, thus permitting round robins to be played on Wednesday and Sunday afternoons. The first team won the 1st Cavalry Division championship last fall at Fort Bliss for the third consecutive year. Controlled rides are conducted every Sunday morning for the officers, their ladies and guests.

Much interest and enthusiasm has been shown among

the enlisted personnel in basketball. Each unit on the post has a team, and two games are played each night for five nights a week, on the Troop F lighted basketball court. The games have been very well attended, especially when traditional rivals meet. The season is not complete and several very fast teams are competing for the final honors.

The Christmas holidays were greatly enjoyed by the entire regiment. Quite a few men were able to visit their respective homes, and those that remained at Fort Clark enjoyed a very adequate feast on Christmas Day.

The officers' club entertained with dances on the evening of December 22d and on New Year's Eve, which were greatly enjoyed and were the highlights of the holiday season.

Everyone has started the New Year with enthusiasm, in an effort to set the regimental efficiency standard higher than ever.

6th Cavalry—Fort Oglethorpe, Georgia

COLONEL CHARLES BURNETT, *Commanding*

THE Fourth Corps Area Commander, Major General George Van Horn Moseley, inspected the garrison and reviewed the regiment on November 18th.

Colonel Charles Burnett assumed command of Fort Oglethorpe and the 6th Cavalry upon the departure of Colonel Llewellyn W. Oliver. Colonel Burnett has served many years in the Far East. He comes to this station from the War Department General Staff.

Colonel and Mrs. Oliver left the post on the morning of December 11th. As they drove slowly from their quarters to the main gate they received the salute of the troops of the garrison who had assembled to bid farewell to the departing commanding officer and his wife. Colonel and Mrs. Oliver had not only endeared themselves to the members of the garrison but were held in high esteem by the citizens of the neighboring city of Chattanooga and vicinity.

Colonel Burnett held a New Year Day reception at the Officers' Club, at which were received the officers and ladies of the garrison and a number of civilian friends. Mrs. Burnett arrived from Washington on January 2d, and with Colonel Burnett received the officers and ladies of the garrison at the Commanding Officer's quarters on January 12th.

Blue, and Red, hat cords are now to be seen on this cavalry post as recruits for other arms are processed and conditioned here for service in the I and II Corps Areas and Panama. Several hundred of these new soldiers have "gone through the mill" here in the past few months.

Small-bore rifle competitions are under way. Challenges have been sent to teams of other cavalry regiments, and we look forward to some interesting and instructive results.

Basketball and bowling are the current indoor sports for the troops, while drag hunts hold sway for outdoors recreation. Each midweek hunt is participated in by a troop of the 6th as a part of the training program.

7th Cavalry—Fort Bliss, Texas

COLONEL JOHN K. HERR, *Commanding*

THE regiment started its annual training season November 1st, engaging in routine activities. Troops received recruits the latter part of the month.

In December and January interest was stimulated by cross-country rides and polo competition.

On December 5th, Colonel Herr conducted a fifty-four-mile staff ride in territory northeast of Fort Bliss. Officers of the 7th and 8th Cavalry, 2d Brigade Headquarters, and several in Division Headquarters participated. The purpose was to show the condition of men and horses.

The group left at 8:30 A.M., in cool, clear weather, halting at 8:50 A.M., for 7 minutes. The ride was resumed and twenty-six and five-tenths miles was covered during the morning with arrival at Hot Wells at 11:40 A.M. Horses were watered, fed grain and hay and blanketed. Backs and legs received careful attention.

Following a hot lunch, march was resumed at 1:35 P.M., covering twenty-seven and five-tenths miles, and ending at 5:00 P.M., with arrival at the post. Eight miles per hour was the average rate of the entire ride.

All horses arrived in good condition. Upon arrival at stables, they received careful attention. An examination conducted the following morning by Colonel Herr revealed that all were in condition for a repetition of a similar, if somewhat slower, march. The majority of the horses were at least half-breds, and in good condition at the start of the march.

Following is the march table planned by Major Eugene A. Regnier which was used, but not strictly adhered to—both the eight and nine mile trot, and the twelve and fourteen mile gallop being used. It should be noted that there was frequent change of gait, and after the noon halt no period exceeded four minutes:

Morning: W₃, T₃, G₅, T₂, W₂, T₅, G₃, L₃, T₂, G₅,
T₃, W₂, T₅, G₃, W₂, G₄, L₃, H₅.

Afternoon: L₃, T₃, G₄, T₁, W₂, T₄, G₄, W₃, T₂, G₄,
T₂, L₃, T₄, G₄, W₂, T₂, G₄, T₂, L₃, H₅.

During the middle part of December, recruits were combined into a troop for tactical training under Captain Robert L. Howze, Jr., administration remaining in individual troops.

On December 24th lieutenants of the regiment participated in a competitive point-to-point ride of approximately thirty miles, moving from one point to another at a rate of eight miles per hour. Points were designated by azimuths and distance, and coordinates. Winners were: First, 2d Lieutenant Harry E. Lardin; second, 2d Lieutenant Carl D. Womack; third, 2d Lieutenant Andrew J. Boyle; fourth, 2d Lieutenant Hiwert S. Streeter.

On January 9th two similar rides were conducted for the sergeants and for the corporals of the regiment, covering a distance of twenty miles at an average rate of six miles per hour, with four intermediate stations.

Winners in the sergeants phase were: First, Sergeant

Chandler, Troop B; second, Sergeant George, Troop F; third, Sergeant Boyersmith, Troop B.

Winners in the corporals phase were: First, Corporal Harriger, Troop E; second, Corporal Chanson, Troop B; third, Corporal Matteson, Troop F.

Polo activities included a tournament of post teams during the Christmas holidays. Two teams, Blues and Yellows, were entered by the 7th Cavalry, with lineups as follows:

Blues	Yellows
1. Lt. Lardin,	1. Lt. Boyle,
2. Lt. Womack,	2. Capt. Yale,
3. Capt. Howze,	3. Lt. Murdoch,
4. Lt. Williams.	4. Lt. Estes.

8th Cavalry—Fort Bliss, Texas

COLONEL INNIS P. SWIFT, *Commanding*

THE collective training season started on the 1st of November, and with a bang. During the first week there were two division reviews, and for the month there were four, besides one regimental full pack review and inspection.

In addition to the reviews there were two brigade, and four regimental field exercises, besides four held by each squadron.

The month of December was as crowded until the holiday period started on December twenty-fourth.

During December new training directives were received from the VIII Corps Area. Among other changes there was one which reduced the field exercises to one each for squadrons, regiments, brigades and the division per month. This change will serve to considerably reduce the field work of the troops, but it will allow more time for other work such as combat firing, known distance small arms firing, equitation, and other basic training.

A recruiting detachment was sent out from the regiment on October 22d and returned to the post on December 9th. The detachment visited Carlsbad, Roswell, Portales, Clovis, New Mexico, Littlefield and Brownfield, Texas, and small communities too numerous to mention. It was in charge of Sergeant Gilbert H. Appler. Twenty recruits were obtained, and papers are still out on others which may increase the number finally.

Schools for the junior officers and selected enlisted men have kept the afternoon hours filled for them. The reserve officers on duty with the regiment have likewise been kept fully occupied attending schools every afternoon conducted under the direction of post headquarters.

The 8th Cavalry Troop Basketball League ended December 19, 1936. Headquarters Troop, with a record of ten wins and no losses, won the regimental championship. Private, First Class Raymond L. Meyer, stellar guard of this quintet, was adjudged the most valuable player to his team in the league. Practice for the regimental team has started and prospects look bright for another successful season.

In the post boxing tournament the following championships were won by members of the 8th Cavalry:

Private, First Class, David E. Rivett, Machine Gun Troop, light heavyweight.

Corporal Russell Semrow, Troop E, middleweight.

Private Verlin E. Jenkins, Troop F, welterweight.

Major William B. Bradford reported for duty on January 6th and was assigned to the provisional squadron and appointed regimental adjutant. Colonel Frank Keller was relieved from command of the regiment on January 1st and became Chief of Staff, 1st Cavalry Division, and Executive Officer, Fort Bliss. Colonel Innis P. Swift relieved Colonel Keller as regimental commander.

The scout car platoon of Headquarters Troop under command of 2d Lieutenant Theodore F. Hurt, participated in the Sun Carnival Parade in El Paso on New Year's Day.

10th Cavalry (less 2d Squadron and Machine Gun Troop)—Fort Leavenworth, Kansas

LIEUTENANT COLONEL N. BUTLER BRISCOE,
Commanding

THE officers of the 10th Cavalry at Fort Leavenworth, Kansas, are being well represented in all of the winter horse shows conducted once a month on the post as well as the indoor polo held five days a week.

Troop A sponsored an enlisted men's horse show, December 17th, all classes being open to members of the 10th Cavalry only.

Class I. Open to three men per troop who had joined during 1936. To be judged on the horsemanship of the rider only, at a walk, trot and gallop and over 4 three-foot jumps. Winner: Private Clifford N. Holland, Troop A, riding *Thistledon*.

Class II. Open to three non-commissioned officers per troop. To be shown over a course of about eight jumps 3 feet 6 inches in height. Winner: Corporal Hollis Ellis, Headquarters Troop, riding *Black Boy*.

Class III. Open to three privates, or privates, 1st class, per troop. To be shown over a course of about eight jumps 3 feet, 6 inches in height. Winner: Private Henry Neal, Troop B, riding *Riley Kay*.

Class IV. Open to three men per troop. To be shown over a course of about eight jumps, 4 feet in height. Winner: Corporal Hazel Watkins, Troop B, riding *Star Shoot*.

The 10th Cavalry has organized teams to represent the regiment in small-bore rifle competition and expects to fire its first match, a fifteen-man team, with the 24th Infantry during the week ending February 13th. After this date the team would like to fire either a fifteen-man team or a ten-man team with any and all challengers.

The basketball team has just begun to whip into shape and gives promise of a very successful season. This is the second season for the 10th in this particular sport.

The football team had a very successful season with six wins, two losses and no ties and was most pleased by a 16

to 6 and a 15 to 9 win over the traditional rival, the 9th Cavalry.

Such things as noncommissioned officers' schools and other instruction and the various duties of garrison life are running smoothly in the customary manner.

1 1 1

11th Cavalry—Presidio of Monterey, California

COLONEL TROUP MILLER, *Commanding*

SPECIAL attention in training, during the past two months, was placed on the functioning of the troop as a tactical unit. Troops were occupied primarily with defensive exercises against hostile aircraft and mechanized vehicles, with firing at targets towed by airplanes, practice marches, the use of smoke in tactical exercises and the conduct of troop schools. The schools for noncommissioned officers and selected privates, conducted within troops, have proven to be highly satisfactory. Each troop covers a given subject in a specific period. Upon completion of the school in any one subject, three noncommissioned officers or privates from each troop are selected and assembled at regimental headquarters and given a written competitive test. Suitable prizes are then awarded to the individual soldiers securing the highest marks. Upon completion of the school year a suitable award is to be presented to the troop attaining the highest standing in all subjects covered by the school. This system standardizes theoretical instruction in troop schools while the written tests indicates how thoroughly the instruction has been given.

The cash awards for enlisted men and the trophy for the platoon leader, who won the Platoon Leadership Test for Small Units, were thoughtfully forwarded from the office of the Chief of Cavalry in sufficient time to permit their presentation by the regimental commander at a regimental formation a few days prior to Christmas.

A track and field meet, dedicating Soldier Field at the Presidio of Monterey, was held on December 22d. Troops of the regiment, the 2nd Battalion, 76th Field Artillery, and Service Detachments of the post competed. The program scheduled twenty separate events and provided an entertaining and interesting form of recreation. Entries were made in such numbers as to require preliminary heats for all track events. Headquarters Troop, 11th Cavalry, was the high point winner with thirty-eight points over the nearest competitor.

A training stable has been organized at the Presidio and training activities placed under the direction of Major Charles H. Gerhardt, who reported to the 11th Cavalry in December from duty in the Philippine Islands. The training activities consist of regularly scheduled work for both officers and mounts. Considerable attention is now being devoted to the training of officers and mounts for participation in the Del Monte Polo Tournament now under way. The ultimate object of polo training at the Presidio is the development of as many equally balanced teams from the Presidio as can be accomplished. The Del

Monte Hotel has graciously offered their fields for use by the local military teams. Needless to say the fields are excellent. Horse show training is also included in the training stable program. Informal monthly horse shows are scheduled for the next three months to terminate with a formal horse show in April.

The 11th Cavalry is now conducting a test in rifle marksmanship. The purpose of the test is to determine whether there should be a revision in the prescribed Marksmanship Course with the objective of bringing peace-time training more closely in line with the training which will be imposed in the event of mobilization. Major changes contemplate:

- (1) A "practice season" of three weeks.
- (2) A skirmish run as a part of rapid fire.
- (3) The elimination of the sitting position.
- (4) Holding a considerable part of instruction practice on the 1,000-inch range.

Changes in personnel affecting the regiment since the last issue of *The Cavalry Journal* consist of orders detailing Major Donald S. Perry, 11th Cavalry in the Inspector General's Department and assigning him to duty in the Philippine Islands, and orders relieving Major Edward J. Dwan, Cavalry, from duty in the Philippine Islands and with the Inspector General's Department and assigning him to the regiment.

12th Cavalry (Less 2d Squadron)— Fort Brown, Texas

COLONEL KERR T. RIGGS, *Commanding*

FORT BROWN presents quite a different appearance these days. All of the large sets of officers' quarters have been painted as have the barracks, noncommissioned officers' quarters and post exchange.

Repair work has been proceeding rapidly. The new road in front of the stables will be completed in another five or six weeks. This is probably the greatest improvement made at Fort Brown since, in the past, this road has been nothing more nor less than a mud hole due to the prohibitive cost of gravel.

Lieutenant Colonel and Mrs. John M. Thompson and their family departed from Fort Brown late in November for their new station at Dallas, Texas.

Chaplain Harold H. Schulz has been transferred from Fort Ringgold to Fort Brown. He reported for duty January 4th.

Brigadier General Ben Lear, commanding the 1st Cavalry Division, paid us a visit early in December. While here he reviewed the regiment and looked over the troops in barracks.

The Christmas holidays passed quickly and enjoyably. Summer weather prevailed. Due to the balmy weather Santa Claus arrived on a white horse and personally presented every child on the post with a present.

At 12 noon, New Year's Day, Colonel and Mrs. Kerr T. Riggs entertained the officers and ladies of the post at a reception at their quarters. The officers attended in a body.

The New Year's Eve hop was one of the largest hops of the year, our friends from Brownsville, almost without exception, attending. It was a most enjoyable affair.

A turkey shoot was held during Christmas week. Considerable interest was displayed and many enlisted men received turkeys.

The basketball team is going over in a big way. They recently defeated the Edinburg Junior College 41-40 in a thrilling game at San Benito. The troop league is in full swing.

The polo team, under the direction of Major Harry Buckley, is working hard. Wednesday and Sunday games are played. Recently a team composed of Major Buckley, Captain Basil L. Riggs, Captain Raymond D. Palmer, 2d Lieutenant Edward N. Neal and Sergeant Conde played the 13th Mexican Cavalry from Monterey. The game was played in Hidalgo and, though defeated, our team made a very creditable showing against an exceptionally well mounted opponent.

In February a tournament will be held at Fort Brown with teams from Mexico and this country being invited. Two Fort Brown teams will be entered.

2d Squadron, 12th Cavalry—Fort Ringgold, Texas

LIEUTENANT COLONEL JOHN A. CONSIDINE,
Commanding

NO doubt some interest has been aroused by the article in a recent issue of *The Cavalry Journal* concerning the new hunt at Fort Ringgold, Texas. With this in mind, herewith the latest report. Training has recently suffered a tremendous setback. Effie has departed this vale of tears and gone where all good bobcats go. Effie was our "pièce de résistance," scheduled to put the final polish on hounds who were willing but a trifle weak in their training. She was a full-grown, live wildcat which we purchased several weeks ago from a local hunter. A collar was prepared and it was contemplated leading her between two horses on long ropes, in order to give the hounds a good, fresh scent to follow each morning on their exercise. Then at the end of each day's work, the hounds were to be allowed to close with Effie long enough for her to hand out a few gentle taps so that as time went on, both the scent and sight of a cat would be most odious to any self-respecting hound. But the best-laid plans of mice and men often follow the wrong nose. Now we are searching diligently for a successor to Effie.

A most pleasant holiday season has come and gone and all are reasonably imbued with the Christmas spirit and the desire to carry on to bigger and better things in 1937. The day before Christmas saw the celebration of the Post Christmas tree with a most attractive program by the Post Sunday School and the distribution of candy and gifts to all children.

The holiday season was topped off in the Service Club on the night of January 2, 1937.

Major Joe C. Rogers, who was recently assigned after completing a tour in the Philippines, has arrived with Mrs. Rogers and his son Joe, Jr.

Old man Winter is certainly treating us well this year. Aside from two or three rather short lived northers, the weather has been perfect. In our humble opinion, the sunny skies of California or the balmy days of Florida have nothing on our own generous brand of meteorological benevolence.

13th Cavalry (Mecz)—Fort Knox, Kentucky

COLONEL CHARLES L. SCOTT, *Commanding*

SINCE sending in the last regimental notes to The CAVALRY JOURNAL, the 13th Cavalry has continued its mission of changing from a horse regiment to a mechanized one. The renovating and overhauling of the barracks has been completed with the exception of a bit of painting here and there, and the men are now comfortably settled in their new home. Work is still progressing in the motor park but it too is in the final stages of completion and will soon need only motor vehicles to be a real park.

In addition to the carpenter, plumbing and painting work accomplished, training has also been done. One hundred and thirty-one recruits have been turned to duty and 225 are still undergoing recruit training. Since the regiment has now reached its full strength of 721, the number of recruits will gradually decrease until about February 10th when they will all be turned to duty.

The regiment has twenty-four selected men attending the brigade radio school and sixteen men attending the brigade motor mechanics' school. For strictly regimental training the old men of the regiment have been divided into three groups. One of these is receiving training in combat car driving, maintenance and tactics, one in truck and passenger car driving and maintenance, and the third group in motorcycle operation.

Major Walton W. Cox, now stationed at the Chemical Warfare School, and Captains Redding F. Perry and John L. Ryan, Jr., now with the 26th Cavalry at Fort Stotsenburg, P. I., have been ordered to duty with the regiment upon completion of their present tours of duty.

14th Cavalry (less 1st Squadron)—Fort Des Moines, Iowa

COLONEL JOHN C. PEGRAM, *Commanding*

THE cold weather, which is now a reality, with temperatures hovering around zero, has not hampered training activities at Fort Des Moines to any great extent.

The Cavalry Leadership Test for Small Units was held November 9th, 10th, and 11th with one platoon each from Troops E and F participating. The platoon from Troop F, under command of First Lieutenant James B. Corbett, was declared the winner by a slight margin. The handsome piece of silver which Lieutenant Corbett received from the Office of the Chief of Cavalry was cer-

tainly compensation for the hard work he did in preparing his platoon for the competition.

Seventy-nine remounts are now in training under Captain Earl F. Thomson. The remounts have been worked daily since early November and are rapidly rounding into good shape. All this remount training has been conducted out of doors, even during the most extreme weather and the results have been very gratifying.

The post schools for enlisted men began November 23d and troop schools are being conducted in the afternoons.

The riding hall has been put to good use. A green polo pony class, under Captain Thomson, meets daily for an hour's work on green ponies. This work is almost invaluable to the younger officers. Under Captain Thomson's excellent supervision the regiment should have some good young polo ponies in the spring.

A class in equitation for officers and one for noncommissioned officers is scheduled for the remainder of the winter months. Captain Thomson is also in charge of these classes.

Since the last report Lieutenant Colonel Herman Kobbé has come to the regiment as regimental executive officer.

103d Cavalry—Philadelphia, Pa.

COLONEL MILTON G. BAKER, *Commanding*

THIS regiment will enjoy its annual encampment from June 26th to July 10th at Indiantown Gap, Pennsylvania, but before that time much water will fall under the bridge, what with the rumors that have been abounding for the past year concerning the scout cars, trucks, station wagons, etc., that are to come in our direction.

The policy inaugurated some time ago of conducting a tactical problem at the same time that the units of the regiment were undergoing quarterly inspections has been continued, and is proving of beneficial interest to officers as well as enlisted men. The subject for the problem in the last quarter was "Reconnaissance Patrols."

The subject of the officers' conference on January 17th was a map problem on "Combat Troops" under the direction of Major Terrill E. Price, Cavalry. All of the officers of this regiment attended the conference.

Two regimental polo teams are in action, one is composed of Captain Charles T. Cabrera, commanding officer of Headquarters Troop; Captain Ramon J. Cabrera, commanding officer of Troop L; 1st Lieutenant Charles E. Vorhees, Adjutant, 2d Squadron; and 2d Lieutenant Henry L. Davisson, Headquarters Troop. The other is composed of enlisted men. Games have been scheduled with the 110th Field Artillery, 112th Field Artillery, Essex Troop and other teams.

Federal and State inspections are scheduled to start March 15th. Last year the inspections were conducted while the units of the regiment were on flood duty.

This regiment will celebrate its organization during the month of April with a four-day celebration, the high

spot of which will be the annual regimental banquet which proved to be a decided success last year.

The stables in the Philadelphia Armory are now in process of completion. These stables will be modern in every sense of the word, and will eliminate the necessity of bringing horses from the present stables, about one mile from the armory. Other improvements include a new armory for Troop F at New Castle, Pennsylvania.

The recruit troop has reached the size of a troop at maintenance strength and is increasing each week with new recruits who will start in where those about to be sent back to their troops leave off.

Troop L and Machine Gun Troop have exchanged designations, the new Machine Gun Troop being stationed at Bellefonte. Lieutenant James H. Reynolds has been transferred from Headquarters Troop to Troop I and Lieutenant Helmuth from Troop I to Troop L.

305th Cavalry—Philadelphia, Pennsylvania

COLONEL VINCENT A. CARROLL, Cavalry-Reserve
Commanding

A RED FOX blinks his eyes, takes a quick look about, and streaks across beautiful Chester Valley. Twenty minutes later, a pack of excited hounds is bounding after him. In back of them, taking fences, ditches, walls, comes a colorful array of officers of the 305th, and members of the Chester Valley Hunt.

This scene is becoming more and more usual as the Regimental Farm near Paoli approaches completion. The inside walls of the house have been scraped and painted by the energetic efforts of Captains Grannis, Town, Lacy, Meehan, and by Lieutenants Gentle, Stidham, Watson, White, Rosenheim.

The heavy stone barn has been dressed up with four new box stalls. Two of the three-year-olds have arrived and are being carefully trained by the lighter members of the regiment. Mr. Alex Da Costa is keeping two of his hunters there. Farmer Pyle has two more. His son Wesley is regimental stable sergeant and is directly in charge of the horses.

Wednesday noon lunches and conferences at the Sansom House continue to draw 15 to 30 men.

Colonel Jerome G. Pillow, very interestingly talked to us, one Wednesday, about Italy and Ethiopia. He spoke of the good work of Major Norman E. Fiske, our former unit instructor. Lieutenant Colonel H. McE. Pendleton ably discussed the use of Mechanized Cavalry in the Second Army Maneuvers.

Riding activities are conducted at the armory every Wednesday evening from 5:30 to 7:30 o'clock. Colonel Arthur H. Wilson has made them instructive and pleasurable. Officers and mounts have shown marked improvement. The usual program is one hour of drill and equitation with one hour of suppling exercises and jumping. In the basement Captain "Tom" Meehan directs pistol practice.

A May Regimental Horse Show is being planned.

306th Cavalry—Baltimore, Md. and Washington, D. C.

COLONEL J. B. P. CLAYTON HILL, Cavalry-Reserve
Commanding

BALTIMORE

REGULAR conferences of the regiment are held at the residence of Colonel Hill, 3 West Franklin Street, Baltimore. On Monday, November 30th, the subject was, "Mobilization of the 306th Cavalry." The lecture was prepared by an expert on the subject, Major Howard C. Zimmer, Cavalry-Reserve, of Headquarters, 62d Cavalry Division. He was ably assisted by Captain Henry G. Sheen, Cavalry. What might have proved a dull subject, became a very live one, and most interesting. Attendance was excellent, with several other branches represented. Those officers present had the opportunity to meet Colonel Edward M. Offley, who reported for duty November 12th, as senior instructor of the Baltimore Reserve units, and as the unit instructor to the local officers of this regiment. We are fortunate in again having a distinguished military scholar to guide us. Refreshments were served at the close of the meeting.

On December 14th, Lieutenant Colonel William H. Skinner conducted the conference on the subject "The Solution of Map Problems." The first hour was devoted to explanation and discussion of procedure, followed by an hour spent in solving a problem which illustrated the principles and methods outlined earlier in the evening. At this meeting Colonel Offley announced that Major William H. Skinner had been promoted, early in December, to the grade of lieutenant colonel. The Baltimore officers of the regiment have functioned to a great extent under the supervision of Colonel Skinner in the last few years, particularly as we had no unit instructor located on the ground, although Major John C. Mullennix, Cavalry, has acted as unit instructor for the entire regiment and has regularly come over from Washington to conduct our conferences and attend our other meetings. Consequently, a sense of personal gratification is felt by all officers in the promotion which was so well earned. Lieutenant Colonel Skinner has been relieved of command of the 1st Squadron and assigned as Executive Officer of the regiment.

It has been a pleasure to have several officer candidates from the R.O.T.C. and C.M.T.C. present at our recent meetings.

Headquarters, 62d Cavalry Division, has announced the detail of 1st Lieutenants Perkins and Dukehart to attend the Cavalry School for the spring course. The Special Service Schools details are very limited in number, and so are much sought after. Certain prerequisites of military work are necessary. The opportunity to take this course is one that, unfortunately, all officers cannot embrace. It is certainly an event in the life of any cavalry officer, and the detail itself is in the nature of a reward for hard work and attention to duty throughout the year, by the officers so selected. Lieutenants Perkins and Dukehart are to be

congratulated, and the officers of the regiment feel that two able representatives of the 306th will be enjoying the "Life of Riley" this spring.

A number of officers have attended the midmonth general conferences of reserve officers held in the post office building.

The January meeting will be on the subject "Cavalry Marches," with a conference problem dealing with a peacetime practice march of the regiment. A motion picture of cavalry crossing an unfordable stream will also be shown.

WASHINGTON

Conferences for the instruction of officers of the 2d Squadron, 306th Cavalry, Headquarters Troop, 153d Cavalry Brigade, and units of the 462d Armored Car Squadron, were held in the assembly hall of the Washington Reserve Headquarters on November 5th and 19th, and December 3d and 17th.

These conferences included the following: Tactical Employment of .50 Caliber Machine Gun, by 1st Lieutenant H. J. Gunderson, 306th Cavalry; Principles of Solution of Map Problems, by Captain W. I. Irby, assisted by 1st Lieutenant V. C. Mills, 306th Cavalry; Solution of a Map Problem, by Major John C. Mullenix and 1st Lieutenant E. M. Perkins, 306th Cavalry; Cavalry Rifle Platoon, by 1st Lieutenant Robt. W. Castle, 306th Cavalry; Practical Work on Machine Guns, by Captain E. H. Daniel, Jr., 306th Cavalry, Lieutenant Parker, 306th Cavalry, Lieutenant Luchenbach, 124th Cavalry, Lieutenant Johnson, 320th Infantry, Lieutenant Dixon, 306th Cavalry, and Lieutenant Hood, Cavalry-Reserve; and Medical Aspects of Conscription, by Lieutenant Colonel J. D. Stout, M.I.-Reserve. The instruction relative to the .50 caliber machine guns and the cavalry rifle platoon was supplemented by sound films obtained through the cooperation and courtesy of the Office of the Chief Signal Officer.

The conference involving the practical work on machine guns was the first of a series in which the officers will learn the mechanics of assembling and operation by working with several of these weapons which have been obtained by the unit instructor.

The regiment has been especially favored by the following lectures: "Cavalry Weapons," by Major Thos. J. Heavey, 3d Cavalry; and "The World War—Eastern Front, 1914-1915," by Major John C. Mullenix.

Equitation classes were held at the riding hall at Fort Myer, Virginia, on November 7th and 22d, and December 6th and 20th.

3d Squadron and Machine Gun Troop, 307th Cavalry—Norfolk, Virginia

CAPTAIN ROBERT B. BATTE, Cavalry-Reserve
Commanding

THE last three unit schools have included the subjects "Gas," "Armored and Scout Cars," and "Observation Aviation," and by means of a conference map problem,

students have been shown how they fit into the combat team. We have also enjoyed a period of pistol shooting at the armory.

Major William J. Yetton has been relieved from command of the 3d Squadron and assigned to the 462d Armored Car Squadron.

307th Cavalry (less 3d Squadron and Machine Gun Troop)—Richmond, Virginia

COLONEL MATTHEW F. JAMES, Cavalry-Reserve
Commanding

SINCE October the regiment has had more than its share of gains and losses. Major J. R. Mullen transferred to the Inactive Reserve on October 19th. Majors Yetton and Ames were also lost on December 15th, to the 462d Armored Car Squadron, and Headquarters 153d Cavalry Brigade, respectively. Having moved outside the Corps Area, the following were transferred out: 1st Lieutenants H. S. Kane and L. P. Thomas; 2d Lieutenants L. E. Bell, Jr., G. B. Johnson, and S. C. Wolfe.

Gains include the assignment of 2d Lieutenants M. L. Robinson, R. F. Fowler, W. M. Aréhart, and our second enlisted reservist, Private Edwin O'Connor.

Promotion came to our Adjutant, 1st Lieutenant Frederick Sale, and to 2d Lieutenants Carrico, Crews, and Vaughan.

Captain Montague's fine work on the regimental history has been mimeographed and distributed throughout the regiment. A second installment to bring it up to date has been completed and will issue shortly.

308th Cavalry—Pittsburgh, Pa.

COLONEL GEORGE H. CHERRINGTON, Cavalry-Reserve
Commanding

THE second half of the school year is about to begin. It will be the function of this regiment to take charge of the training of the C.M.T.C., at Fort Myer, Va., next summer, and therefore the instruction at all remaining conferences will be given with the idea of preparing and refreshing the officers, so that they may conduct the camp training with credit to themselves and to the regiment. It is hoped that a full complement of officers will be prepared and available for these duties, in order that it will not be necessary to call upon another regiment for personnel.

The mild weather during the fall and so far this winter has permitted more than the usual amount of outdoor activity. Several officers who have not been active during the past couple of years are now riding and resuming other activities and this fact is quite encouraging.

The regiment will sponsor a military ball during the latter part of February at the William Penn Hotel. All military commissioned personnel in and near Pittsburgh, as well as all members of the 308th Cavalry, wherever located, will be invited and it is hoped that a large enough

attendance will be obtained to warrant its being made an annual affair.

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862d Field Artillery (Horse)—Baltimore, Md.

COLONEL ROGER S. B. HARTZ, Field Artillery-Reserve
Commanding

LIEUTENANT COLONEL NEWTON N. POLK, Field Artillery, reported on November 17th, as the unit instructor of the regiment and of the 402d Engineer Squadron.

Interesting and instructive films of activities relative to field artillery training are now being used during a part of each conference. The following films are scheduled to be shown in the near future: "Map Reading, Harness and Harnessing, and Care of Animals," "Reconnaissance and Occupation of a Position, Indirect Laying, 3-Inch Firing Battery," "Modern Percussion Fuzes, 155-mm Recoil System," "The Soldier, Mounted, Without Arms."

Monthly conferences are held the second and fourth Thursday evenings, at 8:00 o'clock, and officers of other arms and services will be welcome.

Cavalry ROTC Unit, New Mexico Military Institute

(Continued from page 67)

were won by the cadets by scores of 8-2 and 13-5 respectively. In both games reserve players substituted for the regulars during one of the six periods. On November 23d, the Vernon Polo Club of Vernon, Texas, were held scoreless, when a team of reserves were substituted, against which the visitors tallied two goals. The game ended 6-2 in favor of the Cadets. A series of two games was played in Tucson, Arizona, against the strong University of Arizona Team, December 11th and 13th. The cadets entered this series without the services of their elusive regular number one, Cadet Huling Means, Jr., who was out of the game due to a broken arm suffered in the game against the Vernon team. With sports writers listing the cadets as underdogs in spite of their record for the season, the first game was won handily by the Institute with a score of 7-4, the first time in history that the cadets have won their first game against the University of Arizona. In the second game played December 13th, the University of Arizona team started out with a three-goal lead, but the

cadets, inspired by the brilliant play of Thompson, their team captain, came up from behind to win with a score of 6-5. The line-up of the two teams (all future cavalry officers) was: N.M.M.I., No. 1, Bannister; No. 2, Shirley; No. 3, Thompson, Captain; No. 4, Rogers; for University of Arizona, No. 1, Hathaway; No. 2, Evans, Captain; No. 3, Branson; No. 4, Judson.

The winter training season for the three cavalry squadrons is progressing rapidly. Sergeant E. H. Day has daily classes in Machine Guns, Staff Sergeant W. L. Robinson, handles two troops daily in cavalry camps and shelter tent pitching, while the cavalry reserve officers, First Lieutenants J. Posz, T. Stapp, and S. Orell, assist in mounted and dismounted drills and problems.

A \$100,000 building program which includes a new stable to conform to the general architectural design of all other buildings has been instituted. This, in addition to the new \$7,000 rifle range, which has been completed, will add considerably to our instructional facilities.

New Books

AMERICAN DIPLOMACY, B. H. Williams. A textbook on U. S. diplomatic policies in the 20th Century. \$4.00.

AMERICANS ALL, General H. J. Reilly. A history of the 42d (Rainbow) Division. \$3.00.

AND WE ARE CIVILIZED, W. Ackerman. An Austrian Army officer's recollections of the war. \$2.50.

AZEFF THE SPY, B. Nikolajewsky. An account of the Russian terrorist, revolutionist and informer. New and cheaper edition. \$1.00.

BOTHA TREKS, Colonel H. F. Trew. A biography of General Botha. \$3.50.

JULIUS CAESAR, Colonel J. Buchan. A new and revised edition. \$2.50.

DEVIL THEORY OF WAR, Prof. C. A. Beard. An inquiry into the nature of history and the possibility of keeping out of war. \$1.50.

THE ENEMY WITHIN, Captain H. Landau. The inside story of German secret service activities in the United States told for the first time. \$3.00.

EUROPE SINCE 1914, F. L. Bennis. New and revised edition. \$5.00. (School edition, \$3.75.)

EUROPE SINCE THE WAR, J. H. Jackson. A sketch of political development, 1918-36. \$1.50.

FREDERICK THE GREAT, R. Hamilton. A new biography. \$1.50.

HOW TO RUN A WAR, B. W. Knight. The causes and nature of war. \$2.00.

IN THE YPRES SALIENT, Colonel H. B. Willson. The story of a fortnight's Canadian fighting, June 2-16, 1916. Cheaper edition. \$1.00.

NAPOLEON AND HIS MARSHALS, A. G. Macdonell. New and cheaper edition. \$1.00.

ON THE WING, D. Masters. Pioneers of the flying age. \$2.50.

PORTRAIT OF T. E. LAWRENCE, V. Richards. An original contribution on the life of a man whose career has struck the imagination of our time. \$3.50.

TANNENBERG, R. van Wehr. An excellent popular account of the battle, published only in German. \$1.50.

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